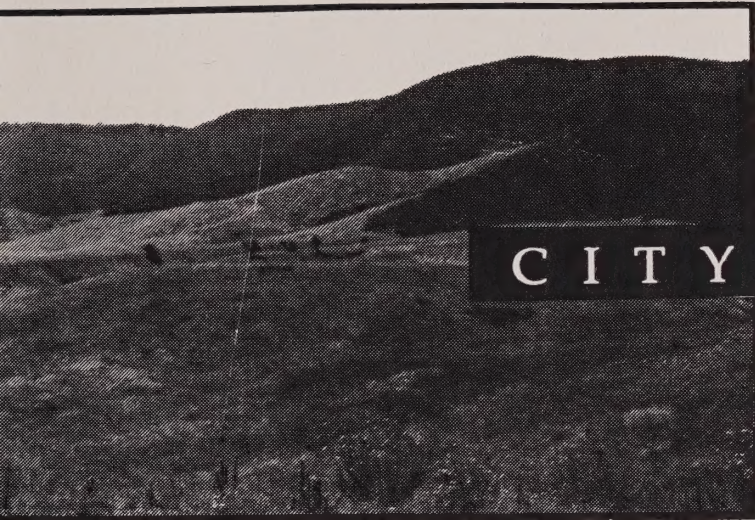


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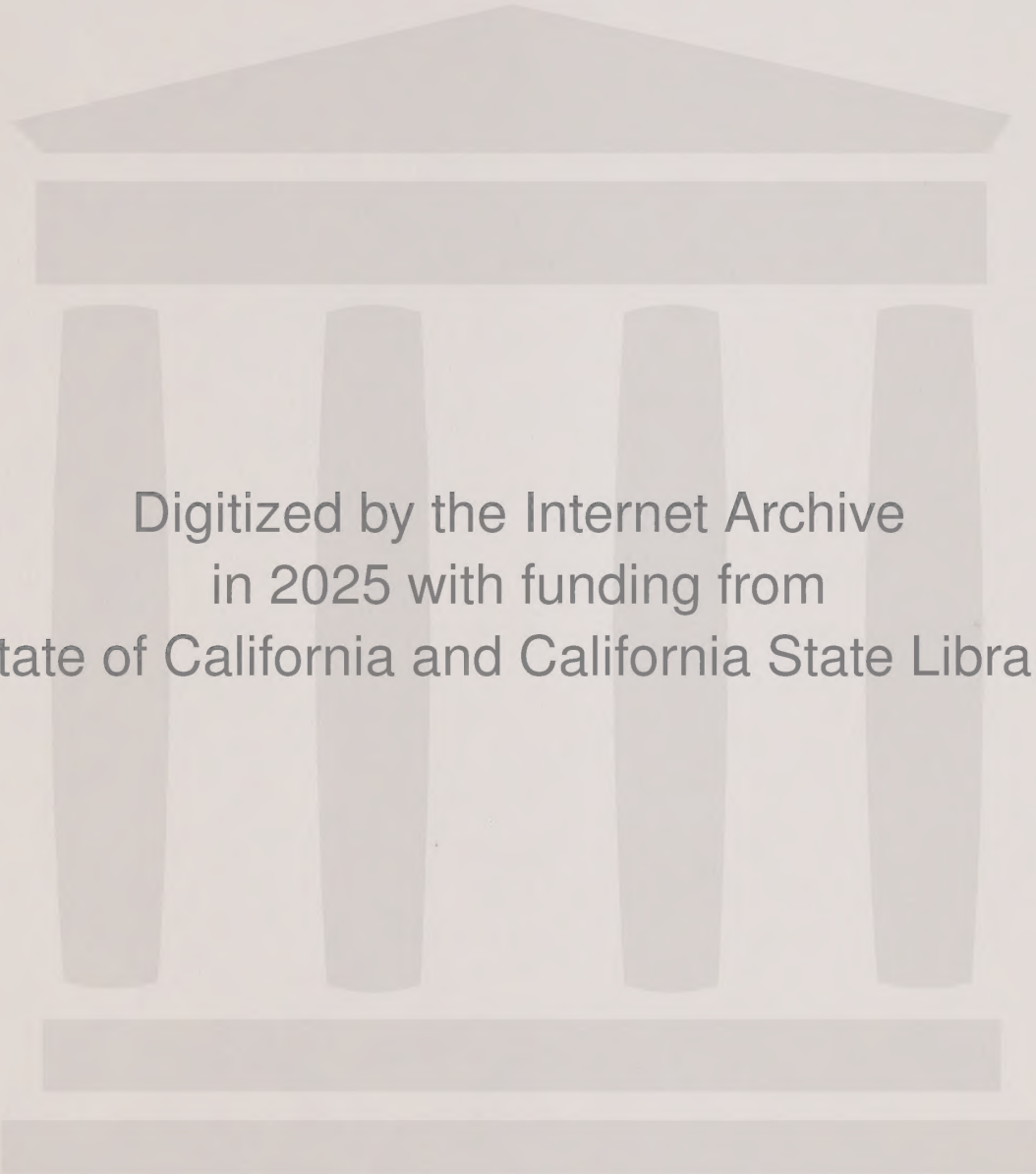


CITY OF MURRIETA

GENERAL PLAN
DRAFT

EIR

DECEMBER, 1993



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1. INTRODUCTION

This document is a Draft Environmental Impact Report (EIR) which has been prepared to analyze and disclose the potential environmental effects of the proposed Murrieta General Plan. An EIR is an informational document intended to inform decision-makers and the general public of the potential significant environmental impacts of a project. An EIR also identifies possible ways to minimize the significant impacts (referred to as mitigation) and describes reasonable alternatives to the project. The public agency with authority to approve or deny the project (the City of Murrieta) will consider the information in the EIR along with other information before making a decision on the project. The findings and conclusions of the EIR regarding environmental impacts do not control the agency's discretion to approve, deny, or modify the project, but instead are presented as information intended to aid the decision-making process.

1.1 AUTHORIZATION

This EIR has been prepared for the City of Murrieta in accordance with the Guidelines for the Implementation of the California Environmental Quality Act of 1970 (Sections 15000-15387 of the California Code of regulations). The Guidelines stipulate that an EIR must be prepared for any project that may have a significant impact on the environment. The General Plan under consideration is a "project" as defined by Section 15378 of the Guidelines. Upon initial environmental review of the General Plan proposal, the City determined that the General Plan could have a significant adverse impact on the environment and, therefore, the preparation of an EIR was required.

1.2 LEAD AND RESPONSIBLE AGENCIES

The California Environmental Quality Act (referred to herein as "CEQA") defines a "lead agency" as the public agency which has the principle responsibility for carrying out or approving a project. There can only be one lead agency for a project. Other agencies which also have some authority or responsibility for carrying out or approving a project are designated as "responsible agencies". Both the lead agency and responsible agencies must consider the information contained in the EIR prior to acting upon or approving the project.

The City of Murrieta is the lead agency for this project. At this time, no responsible agencies have been identified for the project.

1.3 PROJECT PROPONENT

Because the proposed General Plan is a public policy document of the City, the City of Murrieta is the proponent for this project. Therefore, the City of Murrieta is both the proponent and the lead agency for this project. Comments or questions regarding the project should be directed to the following address:

City of Murrieta
Planning Department
26442 Beckman Court
Murrieta, CA 92562

1.4 THE EIR PROCESS

When a public agency determines that there is substantial evidence that a project may have a significant effect on the environment, the agency must prepare an EIR before a decision is made to approve or deny the project. The purpose of the EIR is to fully disclose a project's impacts and recommend measures to reduce or avoid significant impacts. The basic content of an EIR includes a description of the project and its objectives, a description of existing conditions at the project site or in the project area, a discussion of the potential significant effects of the project, recommended measures for reducing impacts, and an evaluation of feasible alternatives to the proposed project.

An EIR consists of two documents: a Draft EIR, which is circulated for review by the public and affected governmental agencies, and a Final EIR, which consists of responses to comments received on the Draft EIR, as well as any necessary modifications to the Draft EIR. After the Draft EIR has been circulated for review and the Final EIR has been prepared, the EIR must be considered and approved by the agency's decision-making body before any action can be taken on the project. If the lead agency makes substantial changes to the Draft EIR after circulation or decides to present significant new information, then the agency must re-circulate the revised Draft EIR for additional review and comment.

The decision to prepare an EIR is usually triggered by the completion of an Initial Study for the proposed project. When a public agency receives a complete project application or decides to undertake a project of its own, it first determines if the project is subject to environmental review under CEQA and, if it is, the agency staff then typically prepares an Initial Study to determine if the project has the potential to cause significant environmental effects. The Initial Study serves as a tool to help the agency determine if an EIR is needed and also helps determine what issues should be examined in the EIR. An agency can skip the Initial Study process if it already knows that an EIR will be required.

The EIR process is initiated by the distribution of a Notice of Preparation (NOP). The NOP is sent to other agencies to solicit their suggestions for appropriate issues and types of analysis to be included in the Draft EIR. When preparation of the Draft EIR has been completed, it is circulated to responsible agencies, other affected or interested agencies, and interested members of the public for review and comment. It

is also commonly available in the local public library. The review period for a Draft EIR is 45 days. All comments and concerns regarding the Draft EIR must be received by the lead agency during this 45-day period in order to be considered in the Final EIR.

Responses to comments received on the Draft EIR are prepared by the lead agency and included in the Final EIR. The Final EIR may also contain some additional information about the project's potential impacts and minor corrections or modifications to the Draft EIR. The Final EIR must be certified (approved) by the lead agency's decision-making body (sometimes this responsibility is delegated to a commission) before any action is taken to approve or deny the proposed project. Typically, certification of the EIR and deliberation on the project occur at the same hearing, and public notice of these actions are usually advertised together.

CEQA only requires that the EIR address significant adverse impacts. The CEQA Guidelines do not establish thresholds or standards which define the significance of various types of impacts. The determination of the significance of impacts is left to the discretion of the lead agency. The CEQA Guidelines do state that the significance of impacts should be considered in relation to their severity and probability of occurrence. Also, the identification of significant impacts in the EIR does not prevent an agency from approving the project. The project may be approved if the lead agency determines that there is no feasible method of mitigating significant impacts or if the agency determines that there are important overriding considerations, such as social and economic benefits, which are sufficient to justify approval of the project.

1.5 A PROGRAM EIR

The California Environmental Quality Act defines the adoption or amendment of a General Plan as a project which requires environmental review. As a result of such review, if any aspect of the proposed General Plan is determined to have the potential to cause significant impacts to the environment, then an EIR must be prepared. The CEQA Guidelines recognize that an EIR for a General Plan will not be as specific as an EIR for a development proposal or site-specific projects. Therefore, the CEQA Guidelines define a type of EIR known as a *program EIR* as suitable for a project such as a General Plan.

A program EIR is prepared for a series of related actions that can be characterized as one large project, such as a General Plan, master plan, or regulatory program. As a practical matter, projects suitable for a program EIR generally have at least two of the following features:

- An implementation schedule of longer than two years;
- General parameters or conditions which will be applied to future activities such as site-specific development proposals; and
- A requirement for subsequent agency discretionary approvals for future development projects or regulations.

Program EIRs contain less detail than typical development project EIRs because the level of detail in the environmental impact analysis can only reflect the level of detail in the program description itself. Section 15146 of the CEQA Guidelines states: "The degree of specificity required in the EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR".

One of the advantages of the use of a program EIR is that it allows the lead agency to consider broad policy alternatives and city-wide mitigation measures before important policy decisions have been made. It also ensures consideration of cumulative impacts that could otherwise be slighted in project-by-project analysis. Program EIRs also avoid the need for unnecessary reconsideration of basic policy matters in future EIRs and provide level a of environmental analysis on certain issues that does not need to be repeated in the future in EIRs for development projects or other individual actions.

1.6 FOCUS OF ANALYSIS

The City has determined that the proposed project has the potential to cause certain types of significant impacts and, therefore, the analysis of the Draft EIR has been focused on the following topics:

- Land use
- Population, employment, and housing
- Transportation and circulation
- Noise
- Geology
- Hydrology and water quality
- Air quality
- Biological resources
- Utilities
- Public services
- Aesthetic/visual impacts
- Cultural resources

1.7 EIR CONTENT AND FORMAT

The Draft EIR is organized into seven chapters, each dealing with a separate aspect of the required content of an EIR as described by the CEQA Guidelines. Following this introductory chapter (Chapter 1.0) is a complete description of the proposed project, including project location, objectives, and characteristics (Chapter 2.0). The results of the impact analysis along with recommended mitigation measures are summarized in Chapter 3.0. The complete and detailed impact analysis is presented in Chapter 4.0.

Certain mandatory topics dealing with the long-term implications of the project are discussed in Chapter 5.0. Chapter 6.0 is a discussion of various alternatives which have been identified by the lead agency for evaluation in comparison to the proposed project. Chapter 7.0 lists resources and persons consulted in conducting the environmental analysis and presents a list of the persons who prepared the Draft EIR. Responses to the NOP and technical studies prepared for the Draft EIR are contained in the Appendix.

Chapter 4.0, entitled "Environmental Impact Analysis", is the focal component of the Draft EIR. The environmental impact analysis has been organized into a series of sections addressing each environmental topic (Traffic, Noise, Air Quality, etc.). The sections covering each individual environmental topic are divided into the following subsections to assist the reader in understanding the organization and basis of the analysis:

- Setting. This subsection describes existing conditions at the project site and the immediate area which may be subject to change as a result of implementation of the proposed project. There is a separate description of existing conditions for each environmental topic.
- Standards of Significance. Before potential impacts are evaluated for significance, the standards which will serve as the basis for judging impact significance are presented.
- Impacts and Mitigation Measures. This subsection states and explains impacts caused by the project. If the impacts are considered to be potentially significant, mitigation measures are proposed to reduce or avoid the impacts.

The summary presented in Chapter 3.0 provides a comprehensive overview of the project's impacts. For a more detailed description of project impacts, it is recommended that the reader review the project description (Chapter 2.0) and then read the sections on the topics of interest in the environmental impact analysis (Chapter 4.0). For a more detailed investigation of certain technical topics, the reader is referred to the various technical studies in the Appendix and those available at the City Planning Department.

1.8 EIR RELATIONSHIP TO THE CITY OF MURRIETA MASTER ENVIRONMENTAL ASSESSMENT

The California Environmental Quality Act (CEQA) Guidelines Section 15169, establishes that a public agency may prepare a Master Environmental Assessment (MEA) to provide information that may be used or referenced in Environmental Impact Reports (EIRs) or Negative Declarations. The CEQA Guidelines suggest that the MEAs can be used to assist in the formulation of a general plan by identifying environmental characteristics and constraints that need to be addressed in the general plan. In consideration of the above, the City of Murrieta prepared a MEA in October of 1992 to identify environmental constraints and assist in development of the City's General Plan. As a comprehensive data

1. Introduction

base on existing environmental conditions in the City the MEA is referenced throughout this document as a source for more comprehensive information on existing conditions under the heading "Setting" for the various issue areas addressed in Chapter Four of the EIR. In an effort to avoid unnecessary duplication of information contained in the MEA, information on existing conditions in the EIR is limited to that which is fundamental in showing the line of logic used in determining the significant of environmental impacts. The City of Murrieta MEA and the technical background reports used in development the various General Plan Elements are available for review at the City of Murrieta Planning Department located at 25442 Beckman Court in the City of Murrieta.

2. PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The City of Murrieta, incorporated July 1, 1991, encompasses approximately 26.5 square miles in the southwest portion of Riverside County. The City is bordered by the City of Temecula to the south, the unincorporated community of Wildomar to the north, and areas of unincorporated Riverside County to the east and west. The City is approximately 80 miles southeast of Los Angeles; 65 miles north of San Diego; and 45 miles south of the City of Riverside. The Riverside/San Diego County boundary lies 6.5 miles to the south of the City. Interstate 15 (I-15) and Interstate 215 (I-215) pass through the City and converge near its southern boundary. The Murrieta General Plan study area includes both the City of Murrieta, and its sphere of influence. The sphere of influence is 11,657 acres in size and is bordered by the City of Murrieta to the west, the City of Temecula and State Route 79 to the south and east, and Scott Road and the unincorporated community of Menifee Valley to the north. The location of the study area in the region is shown on Figure 2-1, and the boundaries of the study area are shown on Figure 2-2.

2.2 BACKGROUND

Preparing, adopting, implementing, and maintaining a general plan is a process that serves to:

- identify the community's land use, circulation, environmental, economic, and social goals and policies as they relate to land use and development;
- provide a basis for local government decision making;
- provide citizens with opportunities to participate in the planning and decision making processes of local government; and
- inform citizens, developers, decision makers, and other cities and counties of the ground rules that will guide development within the community.

Prior to incorporation, the community of Murrieta was governed by the County of Riverside's planning processes. This included the assignment of County land use designations, as set forth in the Southwest Area Community Plan (SWAP), and the County processing and approval of local development plans, specific plans, and other development and land use permit applications.

Murrieta's general plan process began before incorporation through the efforts of a citizens' committee which drafted a preliminary set of goals for the future plan. After incorporation, a 16-member General Plan Advisory Committee (GPAC) was selected by the City Council to guide the preparation of the first Murrieta General Plan. Members of the GPAC represented the City Council, Planning

FIGURE 2-1



Commission, Chamber of Commerce Board of Directors, School District Board of Directors, the development community, Community Service Area 143, and resident citizens from geographic areas of the City (including the Sphere of Influence). The GPAC reviewed draft documents, provided direction to consultants and staff, shaped alternative Land Use plans, and ultimately forwarded a draft General Plan to the Planning Commission and City Council.

The GPAC meetings and member involvement were major components of the Public Participation Program for the General Plan. Along with the GPAC meetings, community workshops were held in various locations throughout the Plan Area. Issue identification exercises were conducted at the initial series of workshops. Area citizens were in attendance, and public comments were taken at all GPAC meetings, joint workshops, and hearings.

2.3 OBJECTIVES

As outlined in the "Vision Statement" for the Murrieta General Plan, it is the intent of the City to develop Murrieta's identity and quality of life by achieving the following objectives:

- Balanced jobs and housing programs with complementary environmental and economic considerations;
- A series of agencies whose purpose is to ensure safety for people and property;
- A comprehensive plan to use people of all groups and backgrounds for on-going community enhancement;
- A combination of public and private transportation networks which provide a means of circulation in and through the City and surrounding areas;
- Emphasis on maintaining and improving the community health and welfare of all its residents;
- A plan for economic development which will provide a vital and diversified economy and a coordinated infrastructure;
- A series of identifiable land areas, buildings, community events, parks and open space in which citizens can take pride;
- A program in conjunction with educational agencies, which provides educational opportunities and facilities for all levels of learning, including alternative forms;
- A vision of the future in harmony with the environment, and sufficient foresight of those entrusted with this responsibility to be proactive, not reactive;
- Preservation and proper utilization of natural resources: air quality, geothermal, climate, recreational areas, and people; and
- A program to encourage expansion of the existing diverse medical base.

2.4 SUMMARY OF THE GENERAL PLAN

Although there are hundreds of policies and programs contained within the Murrieta General Plan, the foundation of the plan is set out in 43 specific goals established for each of the following eight elements that are contained in the Plan:

- | | |
|-------------------------------|------------------------|
| ■ Land Use | ■ Safety |
| ■ Housing | ■ Noise |
| ■ Circulation | ■ Air Quality |
| ■ Conservation and Open Space | ■ Economic Development |

Issues for each of the Elements are identified and discussed in a set of Existing Conditions Reports, that serve as appendices to the General Plan. Each Element summarizes pertinent planning issues and contains a set of goals and objectives intended to address and resolve key issues. These elements are further augmented with specific policies and implementation actions. State Law mandates that each general plan element have equal stature, whereby no particular element is considered to supersede another element. Interdependency of the elements is assured because of this requirement.

The following description summarizes the goals of each General Plan Element. Implicit in these goals are objectives, policies, and implementation programs which are discussed in detail in the individual environmental issue sections. Impacts of the specific policy implementation actions are discussed in Chapter 4 of this EIR.

Land Use Element

The Land Use Element has an important role in determining land use and development decisions. Consisting of both text and map, this element defines the various land uses and designates their distribution, location, and extent throughout the City of Murrieta and the Sphere of Influence. It contains standards for residential density, as well as building intensity. Residential density is expressed in terms of dwelling units per acre. Building intensity is expressed in floor area ratios (FAR). FAR is the ratio between building floor area and total site area. The Land Use Element is broad in scope and has a strong relationship to every other General Plan Element.

Land Use designations define residential, commercial, industrial, civic, park, and open space lands. Land use designations were developed based on community desires and in response to the specific characteristics of the General Plan Area. These designations are shown on the Land Use Map. The Land Use Element is also concerned with community services and infrastructure, including the impacts of land use on flood control, sewer, and water systems. A section on regionalism discusses aspects of Murrieta's relationships to nearby communities and the surrounding geographic area. Seven goals express the City's intent concerning their most relevant land use issues. Each goal is further defined within the Element in terms of specific objectives and policies.

- Goal LU-1:** A balanced distribution and orderly growth of residential, commercial, industrial, recreational, civic and open space land uses.
- Goal LU-2:** Preservation of the community's rural/non-urban characteristics in appropriate locations in the Plan Area.
- Goal LU-3:** Orderly growth with public services and compatible surrounding land uses .
- Goal LU-4:** Identify, and plan for the preservation, development, or other special circumstance of areas of the Plan Area that are of unique environmental, historical, or economic concern.
- Goal LU-5:** Revitalize private and public lands in need of redevelopment or those that are underdeveloped due to lack of public facilities.

Land Use Designations

The following briefly describes the land use designations proposed in the Murrieta General Plan. The designations were developed based on community desires and in response to the specific characteristics of the Plan Area. A more detailed description of the designations and the land use plan and statistics for buildout under the plan are provided in Chapter 4, Section 4.1.

Equestrian Residential (0-0.4 du/ac)

The lowest density residential classification established for large lot single-family uses within a rural atmosphere. The minimum lot size is 2.5 acres. Horses and other livestock may be kept in conjunction with the primary residential use.

Rural Residential (0.4-2 du/ac)

Single-family residential land use classification for establishing large lot single-family areas. Minimum lot size is a 1/2 acre, unless within a Master Plan Overlay area (5,000 square foot minimum).

Single-Family 1 Residential (2.1-5 du/ac)

Single-family subdivisions, with a minimum lot size of 7,200 square feet. Target density is 3.5 du/ac. Cluster developments with minimum 5,000 square foot lots are possible within the Master Plan Overlay area.

2. Project Description

Single-Family 2 Residential (5.1-10 du/ac)

Small lot single-family detached homes and attached single-family units with common walls are allowed in this designation. Minimum lot size for single-family detached units is 5,000 square feet. Target densities are 8.0 du/ac for attached projects and 5.1 du/ac for detached projects.

Multi-Family 1 Residential (10.1-15 du/ac)

Low density multi-family units, stacked flats or townhouses with ample amounts of open space are allowed. Target density is 12.0 du/ac.

Multi-Family 2 Residential (15.1-20 du/ac)

High density designation intended for multi-family uses such as senior housing, congregate care, or group quarters are allowed in this designation. Target density for future sites is 16 du/ac.

Master Plan Overlay

This designation is for larger properties with unique characteristics or circumstances that require additional detail in planning residential development. The designation is an overlay to the base designation and provides for clustering of dwelling units within projects that are between 10 and 200 acres in size. The base designation will control the overall gross density of the site. The approval of a Specific Plan, consistent with Government Code Section 65450, is required for projects exceeding 200 acres in size. Minimum lot size is 5,000 square feet for cluster developments and the gross base density cannot be exceeded.

Regional Commercial

Regional commercial centers, with department stores or other major tenants as anchors, are provided for in this designation. Professional office uses, are included. Floor Area Ratios (FAR) for regional centers are 0.25 or greater. Regional centers are generally 30 acres or larger in size.

Community Commercial

This designation is intended to serve the daily shopping needs of a community. It includes destination centers, supermarket centers, and smaller, single-lot commercial activities. Beyond the retail uses, financial, office, hotel/motel and restaurant activities are also allowed. Community centers are generally 10 to 30 acres in size. FAR ranges from 0.23 to 0.27.

Neighborhood Commercial

This designation is for convenience shopping. It includes individual retail and service uses and small destination centers on sites generally ranging from 3 to 10 acres in size. FAR is 0.23 to 0.25.

Recreational/Resort Commercial

This category provides for resort type uses. Lodging accommodations with eating and conference facilities along with a recreational use such as golf course and/or tennis courts are allowed in this designation. Theme parks and recreation centers would also be allowed.

Professional Commercial

Office, administrative, business, and medical services are allowed. Financial institutions, limited retail commercial uses, and eating establishments all support the primary office use. Maximum FAR is 0.5.

Multiple Use

The Multiple Use designation provides the City with a flexible land use category to respond to locational and market considerations. The designation allows for commercial and residential uses with regulations varying by location.

Industrial

Quality industrial developments, providing jobs commensurate with local resident qualifications, developed in a business park setting, are desired.

Business Park

Light manufacturing, fabrication, materials processing, and assembly are provided for in this designation, provided that the uses are conducted in a controlled setting. Maximum FAR is 0.4.

General Industrial

Allows for the processing of raw materials into manufactured parts or products. Warehousing, bulk storage, and distribution facilities are also allowed. Maximum FAR is 0.4.

Civic/Institutional

This designation allows for public uses such as hospitals, general aviation airports, government offices, civic centers, public agency or district facilities, educational facilities, and libraries.

Open Space

Lands set aside for protection and conservation of natural resources are designated as open space. Steep hillsides, equal to or exceeding 50% slope, and other significant habitat areas are included in this designation. Creeks should remain in a natural condition and should be encouraged to include a trail system.

Recreation/Parks

This designation is for active and passive recreational uses both public and private. Golf courses, parks, and drainage courses are considered recreational uses.

Housing Element

Decent housing and a suitable living environment for all socio-economic segments of the population is considered one of the highest priorities in the State of California. Consequently, the Housing Element is not only a mandatory element of general plans, but state law explicitly requires that it be reviewed and updated at five year intervals. The Housing Element of Murrieta's General Plan identifies population and household characteristics, as well as the quantity, quality, and characteristics of the existing housing stock. The Housing Element also examines and expresses methods to meet the housing needs, as determined in the Southern California Association of Governments' (SCAG) Regional Housing Needs Assessment. State Law mandates that goals, policies, and programs be identified that address housing for all Murrieta residents for a five-year period. Recent State legislation modified the five-year requirement. The current planning period was extended to now include the period from 1989 to 1996.

As of January, 1993, the City had an estimated 10,474 housing units. The future housing need for Murrieta has been calculated by applying current household growth rates, vacancy rates, and standards, as identified in the element. Based on this calculation, Murrieta will need to construct an estimated 1,307 housing units from January 1993 to January 1996. Future units are required to be affordable to all income groups as specified by the California Department of Housing and Community Development.

The Housing Program is required to be achievable within the planning period. To guide this Program, goals were established in the Housing Element that focus on four important housing issues. The implementation of these goals includes programs geared to assist very low income, low income, and moderate income households.

Goal H-1: Develop a diversified housing stock in terms of housing type, density, price, and tenure that meets the future housing needs of all socio-economic groups within Murrieta.

Goal H-2: Preserve, maintain, and improve the existing housing stock with special attention to existing affordable housing.

Goal H-3: Remove or minimize governmental constraints on the development, preservation, or improvement of the housing stock.

Goal H-4: Housing opportunities for all households regardless of race, color, religion, sex, family size, marital status, national origin, ancestry, age, or disability.

Circulation Element

The circulation system is one of the most critical components in the overall physical organization of the City. Its function is to provide for the movement of goods and people, including pedestrians, bicycles, transit, and automobiles. Efficient traffic circulation is important to Murrieta's economic viability and social activity. It impacts community cohesion, influences the location of future development, and affects both community appearance and character. Regional coordination is necessary, as local circulation conditions influence, and are influenced by those of neighboring communities. Circulation conditions may even determine the air quality many miles away. Because this system influences the living environment in countless ways, it maintains an important role in a community's quality of life.

The function of the Circulation Element is to provide a master blueprint for implementation of the circulation system. The General Plan land use and circulation plans were developed using alternative land use schemes and a computerized traffic model developed for the City of Murrieta. The Murrieta Traffic Model was used to evaluate the travel demands within the City at buildout of the Land Use Plan. The Circulation Plan is intended to show how the buildout of the Land Use Plan can be accommodated through the identification of desired alignments and a hierarchy of roadways and circulation routes in the City and Sphere area. Operational policies, levels of service, and safety are also addressed in the Element.

The Circulation Element includes the goals, objectives, and policies necessary to implement the Circulation Plan. It is closely related to the Land Use Element, Housing Element, Conservation and Open Space Element, and Air Quality Element. Five goals express the City's intent concerning the most relevant circulation issues. Each goal is further defined within the element in terms of specific objectives and policies.

Goal CIR-1: A circulation system, consistent with all other General Plan elements and goals, that serves the internal circulation needs of the City, while also addressing the inter-community or through travel needs.

Goal CIR-2: A regional transportation system that serves existing and future travel between Murrieta and other population and employment centers within southwest Riverside County and the larger region.

2. Project Description

Goal CIR-3: Alternatives to private automobile transportation that meet the needs of all City residents.

Goal CIR-4: An adequate supply of both private and public off-street parking.

Goal CIR-5: Reduction of traffic congestion.

Conservation/Open Space Element

State Law requires the establishment of Conservation and Open Space elements. This General Plan combines the two elements due to the close interrelationship between conservation and open space in Murrieta. Demands on natural resources and open space areas increase relative to increases in population. For this reason, it becomes necessary for a community to periodically reassess its use of these resources, particularly those that are finite and nonrenewable, or those critical to life support such as air and water. Although the traditional need for resource conservation concerned itself with natural resources, it is also important for a community to assess the man-made cultural and historic resources it wishes to preserve for future residents. This may include the preservation of historic areas and structures, or the preservation of a rural/non-urban character in appropriate locations. Open spaces must also be reviewed and identified to meet the needs of the population. Open space is an important issue in Murrieta due to the desire to maintain a rural/non-urban atmosphere where appropriate.

The goals, objectives, and policies contained within the Conservation/Open Space Element address the conservation and open space issues as they relate to buildout identified in the Land Use Element. Conservation issues for the City of Murrieta include: water resources, biotic resources, land resources, energy resources, cultural/historic resources, rural character, park and recreation, community trail system, and additional open space.

Goal COS-1: Conserve and manage water resource which include surface waters, groundwater, imported water supplies, and waste water.

Goal COS-2: Conserve biotic resources in both natural and urban environments.

Goal COS-3: Soil conservation, watershed protection, the preservation of significant landforms, and the responsible management of mineral resources.

Goal COS-4: Responsibly managed and conserved energy resources.

Goal COS-5: Protect and enhance cultural and historic resources and develop those opportunities which will serve the cultural needs and identity of the community.

Goal COS-6: Preserve, enhance, and maintain the rural character of appropriate areas.

Goal COS-7: Provide open spaces of sufficient quality and quantity to serve both the active and passive recreational needs of the community.

Goal COS-8: Develop and maintain a comprehensive community-wide system of trails that complements both local and regional trail systems.

Goal COS-9: Preserve open space areas that protect community resources and the community's health and safety.

Safety Element

The purpose of the Safety Element is to protect the City of Murrieta from such natural and man-made hazards as earthquakes, floods, fires, and hazardous materials. It is important to identify, assess, and prepare for these situations because of their potential to cause injury or death, property damage, and economic and social dislocation. A number of potentially hazardous situations exist within the community. These include areas vulnerable to geologic hazards such as surface fault-rupture, liquefaction, landslides, subsidence, and fissuring. Other areas of concern include those susceptible to severe flooding from Murrieta Creek and its tributaries, areas vulnerable to large scale wildland fires, and the influence area around the French Valley Airport. The potential for hazardous materials incidents also exists, particularly on the freeways or in industrial areas. Disaster planning and emergency management will require coordination among City Departments and various regional response programs. Design and other protection measures are proposed, along with the goals stated below, to avoid or minimize exposure to potential hazards.

Goal S-1: Protect health and safety and minimize injury, loss of life, property damage, excessive maintenance, and social and economic impacts caused by geologic hazards.

Goal S-2: Minimize injury, loss of life, property damage, and economic and social disruption caused by man-made and natural flood and inundation hazards.

Goal S-3: Reduce the risk of flooding in areas of the City located within designated dam inundation areas.

Goal S-4: Protect water resources in the Murrieta Plan Area from degradation due to urban development in their vicinity.

2. Project Description

- Goal S-5:** Protect water resources of the underlying groundwater basin from contamination and potential degradation from urban development.
- Goal S-6:** Provide citizens of Murrieta with a Fire Safe Community.
- Goal S-7:** A highly effective City Police Department.
- Goal S-8:** Develop and utilize a City Multi-Hazard Functional Plan.
- Goal S-9:** Ensure the safety of persons and property within the French Valley Airport Influence Area.
- Goal S-10:** Reduce threats to public health and safety from hazardous materials, especially threats induced by earthquakes and accidental leaks and spills.

Noise Element

The Murrieta General Plan is required to have a Noise Element that identifies, appraises, and plans for noise problems in the community. In the City of Murrieta, motor vehicle noise is the most common and widely dispersed noise source. Freeway traffic, truck traffic, and traffic on arterial roadways such as Jefferson Avenue or California Oaks Road generates most noise of this type. A lesser degree of noise is generated from the two local airports and construction and industrial activities.

The ultimate purpose of noise control policies is to minimize the exposure of community residents to excessive noise. The need to provide this protection will increase over the coming years as the population density increases. Controlling environmental noise within acceptable levels of exposure can be accomplished by the thoughtful location of land uses, proper site design and protection techniques, and various other techniques as prescribed under the following goals.

- Goal N-1:** A community where noise sensitive land uses are properly and effectively protected from excessive noise generators.
- Goal N-2:** Reduce and avoid noise impacts from mobile sources.
- Goal N-3:** Reduce and avoid noise impacts from construction sources.

Air Quality Element

The City of Murrieta is located within the South Coast Air Basin. Because air quality is clearly a regional issue, pollution standards and planning requirements must be considered on a state and federal level. Murrieta's Air Quality Element is an optional element that has been prepared to address local responsibility for air pollution and comply with the South Coast Air Basin's 1991 Air Quality Management Plan (AQMP). Both stationary and mobile sources of air pollution exist within the City. Permits have been granted to operate stationary sources of emissions such as restaurants, manufacturing plants, dry cleaners, and automotive services. However, most of the air pollutant emissions in the City are generated by mobile sources, primarily the cars, trucks, and buses travelling on local freeways and streets.

The goals, objectives, and policies are designed to reduce the health and economic impacts of air pollution in Murrieta and to increase awareness of local, regional, and governmental responsibility for air quality.

Goal AQ-1: Improve air quality through joint regional efforts.

Goal AQ-2: Improve air quality through land use planning.

Goal AQ-3: Improve air quality through greater jobs/housing balance.

Goal AQ-4: Control emissions by reducing vehicle trips and vehicle miles travelled.

Goal AQ-5: Enhance mobility to improve air quality.

Goal AQ-6: Reduce air emissions through energy conservation.

Goal AQ-7: Reduce particulate matter (PM₁₀) and fugitive dust emissions.

Goal AQ-8: Improve air quality through new technology.

Economic Development Element

An Economic Development Element is part of the Murrieta General Plan because the City believes that coordinated and planned economic development is important to the continued maintenance and improvement of the community. Within the Element, Murrieta's economic environment is discussed in terms of production- and consumption-based factors. The element also addresses economic factors associated with activity outside of Murrieta Plan Area boundaries.

2. Project Description

The goals, objectives, and policies identified in the Element are designed to ensure that Murrieta takes a proactive role in guiding economic development.

Policy guidelines are organized around the following goals:

ED-1: Provide citizens and businesses of Murrieta with a sound economic base.

ED-2: Provide citizens and businesses of Murrieta with a strong economic base through a coordinated implementation strategy that is responsive and efficient.

ED-3: Identify and provide for special circumstances that merit unique directives regarding economic growth or revitalization.

ED-4: Develop a strong fiscal operating position with the capacity to meet public service demands of residents and businesses.

2.5 GROWTH ASSUMPTIONS

Buildout of the Land Use Plan is based on the intensity of each designation multiplied by the gross acreage identified on the plan for the category. Buildout of the residential areas is based on the target densities (for designations that have no target density, the mid-point density is assumed). Non residential buildout is based on assumed FARs. Total yield in terms of dwelling units, population, and commercial and industrial building area are shown in the Land Use Section. An average household population of 2.86 people per household was assigned to each dwelling unit to calculate a total population for the City. The Housing Program, in the Housing Element, assumes 3.22 persons per household due to the shorter range planning period of the Program (4 years). Per unit housing population typically decreases with the construction of new units over time.

The total Plan buildout is estimated to be 50,906 units and 37,035,000 square feet of non-residential development. Buildout population potential is 145,591 persons. These figures assume every square foot of every designated parcel in the City will be developed according to its midpoint density or, where appropriate, its target density, and does not account for existing development that may have been developed at a lower intensity, or for vacancy rates for residential uses. Therefore, although it is assumed that total buildout of the City in all likelihood will not occur, the figures indicate a reasonable "worst case" scenario, based on assumed densities and intensities for the Plan Area. To provide full environmental clearance, this reasonable "worst case" buildout scenario is used as the basis for the analysis of impacts.

3. SUMMARY

This chapter summarizes the potential impacts of the proposed project and lists mitigation measures recommended to reduce or avoid significant impacts. For a full description of the project, its potential impacts, and alternatives, the reader is referred to Chapters 2, 4, and 6, respectively.

3.1 PROJECT UNDER REVIEW

This EIR evaluates the potential environmental impacts of the proposed Murrieta General Plan. The General Plan is the City's primary vehicle for establishing policies to guide decisions regarding land use, future growth, the provision of public services, protection of natural features, and maintenance of community character. The General Plan contains a vision statement for the community, and a series of goals, objectives, policies, and programs designed to guide the future development of the City. Since Murrieta is a newly established city, this is the first General Plan prepared for the City. The area encompassed by the General Plan includes the incorporated territory within the City limits as well as unincorporated area in the City's designated sphere of influence. The City covers an area approximately 26.5 square miles in size and the sphere of influence includes an additional 11,657 acres (18.2 square miles). The General Plan establishes land use designations and a circulation system for the entire area and includes a broad range of policies and programs which address the topics of housing, safety, noise, conservation, open space, air quality, and economic development.

Murrieta's general plan process began before incorporation through the efforts of a citizens' committee which drafted a preliminary set of goals for the future plan. After incorporation, a 16-member General Plan Advisory Committee (GPAC) was selected by the City Council to guide the preparation of the first Murrieta General Plan. Members of the GPAC represented the City Council, Planning Commission, Chamber of Commerce Board of Directors, School District Board of Directors, the development community, Community Service Area 143, and citizens from various geographic areas of the City (including the sphere of influence). The GPAC reviewed draft documents, provided direction to consultants and staff, shaped alternative land use plans, and ultimately forwarded a recommended draft General Plan to the Planning Commission and City Council.

As outlined in the Vision Statement for the Murrieta General Plan, it is the intent of the City to foster Murrieta's identity and quality of life by achieving the following objectives:

- Balanced jobs and housing programs with complementary environmental and economic considerations;
- A series of agencies whose purpose is to ensure safety for people and property;

3. Summary

- A comprehensive plan to use people of all groups and backgrounds for on-going community enhancement;
- A combination of public and private transportation networks which provide a means of circulation in and through the City and surrounding areas;
- Emphasis on maintaining and improving the community health and welfare of all its residents;
- A plan for economic development which will provide a vital and diversified economy and a coordinated infrastructure;
- A series of identifiable land areas, buildings, community events, parks and open space in which citizens can take pride;
- A program in conjunction with educational agencies, which provides educational opportunities and facilities for all levels of learning, including alternative forms;
- A vision of the future in harmony with the environment, and sufficient foresight of those entrusted with this responsibility to be proactive, not reactive;
- Preservation and proper utilization of natural resources: air quality, geothermal, climate, recreational areas, and people; and
- A program to encourage expansion of the existing diverse medical base.

3.2 SUMMARY OF IMPACTS

This summary provides an overview of the analysis contained in Chapter 4, Environmental Setting, Impacts and Mitigation Measures. This summary includes discussions of: a) effects found not to be significant; b) potential areas of controversy; c) significant impacts; d) mitigation measures to avoid or reduce identified significant impacts; e) unavoidable significant impacts; and f) alternatives to the project.

Definition of Significant Impacts

Under CEQA, a significant effect on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including park land, air, hydrology, minerals, flora, fauna, ambient noise, objects of historic significance, light and glare, public service, utilities and natural resources. Standards for determining the significance of impacts are presented prior to the discussions of impacts for individual topics in Chapter 4.

Mitigation Measures to Avoid or Significantly Reduced Identified Significant Impacts

The EIR discusses mitigation measures that would be implemented by the City. Generally, these include implementation of the proposed General Plan policies, adoption of additional policies, and/or adopting more specific measures not mitigated by the General Plan.

Unavoidable Significant Impacts

Although impacts on land use associated with growth that could occur under the proposed General Plan would be substantially reduced through implementation of General Plan policies, impacts associated with

the potential loss of open space and agricultural lands are still considered significant and unavoidable. All other significant impacts identified in the EIR have been mitigated to a less-than-significant level.

Alternatives to the Project

Three alternatives are considered as part of the environmental review for this project:

1. No Growth. This alternative assumes that no new development would occur in the City. Impacts would solely be based on existing environmental influences in the City and those that would continue to be created outside of the City (such as traffic generation).
2. No Project (Buildout under the Southwest Area Plan). The "No Project" Alternative would allow development in the City to continue in conformance with the County land use designations set forth in the SWAP as they applied prior to incorporation. Buildout under the SWAP would result in approximately 33,334 residential units, 1,902 acres of commercial development, 1,952 acres of industrial development, and 1,902 acres of Multiple-Use development. This alternative would provide an increase in commercial development of approximately 18 percent over the levels in the proposed general plan, and would result in 17,572 fewer residential units.
3. Specific Plan Alternative. This alternative incorporates all specific plans proposed and approved in the City and Sphere of Influence. There is a greater emphasis on commercial and industrial land uses, and a 22,262 decrease in dwelling units. Where the proposed Plan designates nearly all industrial as "Light Industrial" this alternative has a larger percentage of "General Industrial". Only 10 acres of the Plan area are devoted to Multiple-Use versus the 303 acres designated by the proposed General Plan and the alternative proposes 796 fewer acres of open space.

SUMMARY TABLE

Information in the following table, Table 3-1, Summary of Environmental Impacts, has been organized to correspond with environmental issues discussed in Chapter 4. The summary table is arranged in four columns: 1) environmental impacts; 2) potential level of significance without mitigation; 3) recommended mitigation measures; and 4) the level of significance after implementation of mitigation measures. A series of mitigation measures are noted where more than one mitigation measure may be required to reduce the impact to a less-than-significant level.

**TABLE 3-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.1 Land Use			
4.1-1 The land use designations and associated density/intensity standards set forth in the General Plan will allow substantial additional development in the City and sphere of influence, potentially resulting in the construction of up to approximately 38,255 additional residential units and about 33,912,800 square feet of additional non-residential floor area. This is a potentially significant impact.	PS	4.1-1 <i>Collectively, conformance with the Land Use policies of the General Plan are designed to avoid or reduce adverse land use impacts associated with new development and growth. Specifically, implementation of the following Land Use policies will reduce impacts to a less-than-significant level:</i> ■ Residential land uses (LU-1.1e, LU-1.1i, LU-1.1j) ■ Commercial land uses (LU-1.2j) ■ Multiple land uses (LU-1.3c, LU-1.3g) ■ Industrial land uses (LU-1.4g) ■ Existing urban services (LU-3.1a, LU-3.1b, LU-3.1c) ■ Adequate public facilities (LU-3.2a, LU-3.2b, LU-3.2c) ■ Public facilities/master plans (LU-3.3a, LU-3.3b, LU-3.3c, LU-3.3d, LU-3.3e)	LS
4.1-2 Buildout of the proposed General Plan would result in the conversion of a substantial amount of agricultural land and open space to urban uses. This is a potentially significant impact.	PS	4.1-2 <i>Conversion to urban uses is a policy decision of the City and cannot necessarily be considered adverse of and by itself. The following policies of the General Plan are intended to at least partially compensate for</i>	SU

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LS = Less Than Significant

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PS = Potentially Significant

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N/A = Not Applicable

TABLE 3-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.1-3 Buildout of the General Plan will alter the character of land use and development in the community through conversion from a largely undeveloped, semi-rural area to a fully developed area composed primarily of urban uses. This is a <i>potentially significant impact</i>.	PS	<i>the potential loss of open space and agricultural land:</i> ■ Residential land uses (LU-1.1a, LU-1.1b, LU-1.1c) ■ Open space (LU-1.7a, LU-1.7b) ■ Livestock (LU-2.1a, LU-2.2c) ■ Conflicts with existing agriculture (LU-2.3a) <i>Even with implementation of this mitigation measure impacts associated with the loss of open and agricultural land space remain significant and unavoidable.</i> 4.1-3 <i>The General Plan contains policies designed to preserve and maintain certain aspects of the community's existing rural character. Other policies are provided to promote a desired character in new development. These policies are:</i> ■ Development regulations (LU-1.8a, LU-1.8b, LU-1.8c, LU-1.8e) ■ Design guidelines (LU-2.2a, LU-2.2b, LU-2.2c, LU-2.2d, LU-2.2e) ■ Conflicts with existing agriculture (LU-2.3a)	LS

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TABLE 3-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.1-4 As new development occurs, the potential exists for incompatibilities between land uses to occur. This is a <i>potentially significant impact</i> .	PS	■ Historic Murrieta (LU-4.1a, LU-4.1b) ■ Los Alamos District (LU-4.2b)	LS
4.1-5 New development could encroach or otherwise adversely affect sensitive natural areas, such as drainage courses, habitat areas, and steep hillsides. This is a <i>potentially significant impact</i> .	PS	<i>Conformance with the following Land Use policies should adequately address potential adverse impacts associated with land use incompatibility:</i> ■ Commercial land uses (LU-1.2h, LU-1.2i) ■ Industrial land uses (LU-1.4a, LU-1.4d, LU-1.4e, LU-1.4f) ■ Conflicts with existing agriculture (LU-2.3b, LU-2.3c) <i>Implementation of Land Use policy LU-1.7a dealing with open space and the following Conservation and Open Space policies, along with mitigation measures 4.4-2(a), 4.4-2(b), and 4.12-1(b), should reduce potential impacts to a less-than-significant level:</i> ■ Surface waters (COS-1.2b, COS-1.2c, COS-1.2d, COS-1.2k, COS-1.2l) ■ Supportive land use strategies (COS-2.2a, COS-2.2b, COS-2.2c, COS-2.2d)	LS

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TABLE 3-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
		■ Landform protection (COS-3.1a, COS-3.1b, COS-3.1c, COS-3.1d, COS-3.1e, COS-3.1f, COS-3.1g) ■ Preservation of significant slopes (COS-3.2a, COS-3.2b, COS-3.2c, COS-3.2d)	
<u>4.2 Geology, Seismicity, and Soils</u>			
4.2-1 Construction activities would expose soil to erosion; dust would be generated during demolition, clearing, hauling, earthmoving, and grading. This is a <i>potentially significant impact</i> .	PS	4.2-1(a) <i>Implementation of Policy S-4.1b. This policy ensures that new development will include erosion and sedimentation controls.</i> 4.2-1(b) <i>A policy should be added to the General Plan Public Safety Element stating that: An erosion and sediment control plan should be implemented for the grading and construction phases of major construction projects and projects proposed in areas with slopes above 25 percent. In accordance with City guidelines specific erosion control measures should be designed by the project team and reviewed by the City prior to issuance of a grading or construction permit.</i>	LS
4.2-2 New development may create or increase	S	4.2-2(a) <i>Implement Policy S-1.1h. This Policy discourages development on steep terrain.</i>	LS

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TABLE 3-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.2-3 Construction of projects in zones of high seismic risk could result in structural damage exposing additional people to hazard from earthquakes. This is a significant impact.	S	4.2-2(b) <i>Significant areas with slopes of 25 percent or over shall be considered unsuitable for types of development which require extensive grading or land disturbance.</i>	LS
		4.2-2(c) <i>Proposed extensions of urban or suburban land uses into areas characterized by slopes over 25 percent and other generally unstable land with over 15 percent slopes shall be evaluated with regard to safety hazard prior to the issuance of any discretionary approvals.</i>	
		4.2-2(d) <i>Consider adoption of a hillside preservation ordinance in order to implement the policies of the Safety Element and other elements of the General Plan.</i>	
		4.2-3 <i>In addition to complying with the Uniform Building Code, implementation of Policy S-1.1c and e, would reduce this impact to a less-than-significant level. The components of these policies ensure that projects located in areas subject to seismic hazard prepare</i>	

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TABLE 3-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
		<i>reports addressing the hazards and outlining appropriate mitigation.</i>	
4.2-4 Construction in zones subject to fissuring could result in structural damage, exposing additional people to risk. This is a <i>potentially significant impact.</i>	PS	4.2-4 <i>Implementation of Policy S-1.1e would reduce this impact to a less-than-significant level. This Policy requires that projects located in areas where fissuring and subsidence are considered to be hazards prepare geologic reports addressing site conditions, potential risk, and mitigation.</i>	LS
<u>4.3 Hydrology and Water Quality</u>			
4.3-1 Implementation of the proposed General Plan would increase the amount of surface flow generated in the City. Increased surface flow could exacerbate flood conditions and degrade water resources. This is a <i>potentially significant impact.</i>	PS	4.3-1 <i>Implementation of Policies S-2.1b, S-2.1h, S-4.1a, S-4.1b, S-4.1c and S-4.1d would reduce this impact to a less-than-significant level. These policies ensure that adequate drainage is provided with new land uses, that future development takes into account existing capacity and infrastructure problems, and that urban run-off from new development is minimized.</i>	LS
4.3-2 Grading, excavation and construction activities occurring with new development under the proposed General Plan have the potential to increase erosion of soil and	PS	4.3-2 <i>Implementation of Policies S-2.1h, S-4.1a, and S-4.1b would reduce this impact to a less-than-significant level. These policies ensure that new development will address erosion and sedimentation control.</i>	LS

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TABLE 3-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact		Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
deposition of particles in drainage ways. This is a <i>potentially significant impact</i> .				
4.3-3	Groundwater contamination at various locations within the City could affect groundwater quality underlying the proposed project area. This is considered a <i>potentially significant impact</i> .	PS	4.3-3 Implementation of Policy S-5.1a would reduce this impact to a less-than-significant level. This policy ensures that businesses which plan to use hazardous materials obtain the necessary permits and comply with relevant EPA and RWQCB standards.	LS
4.3-4	Development occurring under the General Plan could reduce groundwater recharge, reducing the available water supply. This is a <i>potentially significant impact</i> .	PS	4.3-4 Implementation of Policies S-2.1b and S-2.1h would reduce this impact. These policies reduce impacts to the groundwater basin by preserving natural drainage courses and encouraging the use of pervious surfaces in new development.	LS
4.3-5	Construction of residential housing and other critical facilities (i.e. schools, hospitals, sewage treatment plants) in the City could expose more people to safety hazards and property damage associated with flooding. This is a <i>potentially significant impact</i> .	PS	4.3-5 Implementation of Policies S-2.1e, S-2.1f and S-1.n would reduce this impact to a less-than-significant level. These policies ensure that attention is paid to flood zones when construction is undertaken so as to avoid exposing more people to risks associated with flooding. These policies also reduce stormwater runoff which contributes to flooding.	LS

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TABLE 3-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.3-6 Projects built in areas of shallow groundwater could require dewatering which could introduce contaminated waters into the stormdrain system. <i>This is a potentially significant impact.</i>	PS	4.3-6 A policy should be added to the conservation and Open Space Element that will ensure that projects located in areas of shallow groundwater protect against discharging contaminated water into the stormdrain system by following NPDES permitting procedures.	LS
4.4 Biotic Resources			
4.4-1 Buildout of the proposed General Plan would result in the fragmentation of habitat for native plant and wildlife species. <i>This is a significant impact.</i>	S	4.4-1(a) The City of Murrieta as a condition of project approval shall require the project proponent for each project within an area that contains significant natural habitat to develop and implement a wildlife and habitat management plan. The goal of the wildlife and habitat management plan will be to set forth specific development guidelines to ensure the preservation and survival of sensitive, unique, or locally limited flora and fauna that currently exist in the General Plan area.	LS
		4.4-1(b) The City of Murrieta shall ensure, as a condition of project approval that wildlife corridors within the General Plan area be established and preserved in perpetuity to permit free movement of resident and	

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**TABLE 3-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.4-2 Implementation of the proposed project may result in the loss or adverse modification of Riparian Scrub or Forest habitats, and loss of habitat values for both common and special-status wildlife species that utilize these on-site habitats. This is a significant impact.	S	<i>migratory wildlife and to integrate this free movement with the preservation of General Plan area wetland resources. Such corridors shall include the floodplain of Murrieta Creek, Warm Springs Creek, their associated tributaries and Cole Creek. Plans and projects proposed in sensitive areas shall preserve these major wildlife corridors and identify and preserve in perpetuity additional localized or project-specific wildlife movement corridors identified in the CEQA analysis required for such a project. Such localized corridors shall connect to the corridors associated with Murrieta Creek, Warm Springs Creek, and Cole Creek.</i> 4.4-2(a) <i>Implementation of Policy COS-2.2b which states that the establishment of adequate buffer areas between sensitive habitats and development shall occur. Provide adequate setbacks to protect riparian habitats from roads and structures. Periodically review minimum riparian area setbacks to determine if setback distances are effective, and revise if necessary.</i> 4.4-2(b) <i>To the maximum degree feasible, designate as open space lands located within 100 feet from</i>	LS

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		<i>the top of bank or outside edge of riparian vegetation or a wetland boundary, which ever is greater, for perennial and intermittent streams and creeks, and wetland areas. The City shall prohibit grading, structures, planting of exotic plant species, and native vegetation removal within the 100-foot buffer zone.</i> 4.4-2(c) <i>Where proposed roadways or roadway improvement projects cross wildlife corridors, project proponents in consultation with the City of Murrieta and CDFG, shall design road crossings to accommodate wildlife corridors and facilitate the free passage of fish and wildlife species.</i> 4.4-2(d) <i>The City as a condition of project approval shall require all projects involving grading in the vicinity of a natural watercourse to implement the use of "Best Management Practices" to control erosion during all construction activities.</i> 4.4-2(e) <i>The City as a condition of project approval</i>	

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Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.4-3 Implementation of the proposed project will result in the filling or adverse modification of waters of the U.S. including wetlands, springs, and creeks. This is a significant impact.	S	<i>shall require all projects in the vicinity of a natural watercourse to implement the use of "Best Management Practices" to avoid contamination of riparian habitat from urban stormwater run-off.</i>	LS
		4.4-2(f) <i>The City shall require strict covenants, codes, and restrictions for all land owners adjacent to riparian preserves to prohibit the dumping of refuse or yard clippings, the removal of vegetation, or the planting of exotic species within the riparian buffer zone.</i>	
		4.4-3(a) <i>The City of Murrieta shall establish and implement a "no net loss" wetland policy for the entire General Plan area. Avoidance of wetlands shall be a priority and, when not feasible, impacts shall be kept to a minimum. Compensation shall occur for any loss of wetland acres and/or values to ensure meeting the no-net loss goal.</i>	
		4.4-3(b) <i>The City of Murrieta as a condition of project approval shall require the project proponent for each project containing wetlands to conduct a wetland delineation study. Wetland delineation studies shall be conducted by a qualified biologist in</i>	

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		<i>conformance with the most current U.S. Army Corps of Engineers methodology. The wetland delineation will be submitted to the Corps for formal verification and the City shall not accept any applications for land use entitlement unless accompanied by a Corps verified wetland delineation report.</i> 4.4-3(c) <i>An individual permit, written authorization under an existing nationwide permit, or a written response stating that no further action is required, will be obtained from the Corps prior to the filling or other adverse modification of any of the verified delineated waters of the U.S. on the project site.</i> 4.4-3(d) <i>Where applicable, the City as a condition of project approval shall require project proponents to obtain a Streambed Alteration Agreement. The Agreement shall be submitted to DFG at least 30 days prior to the filling or adverse modification of any of the delineated wetland habitats including Murrieta Creek, Warm Springs Creek, and Cole Creek.</i> 4.4-3(e) <i>The City shall require that all wetlands avoided and/or other appropriate non-profit</i>	

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Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.4-4 Implementation of the proposed project may result in the loss of special-status wildlife species or their habitat. This is a significant impact.	S	<i>agency preserved shall be dedicated to the City or or other appropriate non-profit entity, preserved through covenants enforceable by the City to ensure their maintenance and survival in perpetuity.</i> 4.4-4 <i>All new project submittals shall be reviewed for their potential environmental impact to biotic resources. Any new project on vacant land shall have a preliminary "walk-over" field inspection performed by a qualified biologist. For any site that has been previously graded or otherwise disturbed, a field inspection may not be necessary. The determination on whether or not a field inspection is required will be made by the Planning Department on a case by case basis.</i> <i>As a result of the qualified biologist's preliminary field inspection, helshe will recommend one of three possible curses of action. They are as follows:</i> 1. No further evaluation needed due to the absence of sensitive biotic resources.	

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		2. Completion of a Biological Survey (or Assessment) if an important habitat and/or special-status wildlife/plant species known in the region is present on or suspected to inhabit the project site. Surveys shall be conducted in accordance with the most current DFG/USFWS guidelines or protocols for determining the time of year and survey methodology. 3. The preparation of a Biological Impact Report if any special-status wildlife/plant species are present on the site base on observation or sign. <i>Surveys and subsequent reports shall include at a minimum.</i> ■ A complete list of species observed on the project site for inclusion in the report. ■ A detailed description of methodology including dates of field visits, the names of survey personnel with resumes, and a list of references cited and persons contacted.	

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		■ Survey results which include at a minimum: - <i>A map showing the location(s) of any special-status species identified on the project site.</i> - <i>A detailed description of any identified special-status species population including information on the density, distribution, and habitat quality relative to typical occurrences of the species in question.</i> - <i>A discussion of the importance of the population(s) with consideration of both nearby populations and total species distribution.</i> - <i>An assessment of significance related to project impacts to any special-status species populations identified on the project site.</i> - <i>Recommended mitigation measures to lessen any anticipated significant</i>	

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		<i>impacts. Such mitigation measures might do the following:</i> <i>Demonstrate and ensure that the special-status species populations in question shall be protected on site. This shall include adequate buffer zones and financial means that will ensure the protection and management of the preserve lands in perpetuity.</i> <i>or</i> <i>Should on-site preservation be infeasible, the City of Murrieta in consultation with DFG and/or USFWS if warranted shall require that a mitigation plan be developed and implemented by the project proponent that will preserve the species at an off-site location. This could be accomplished on suitable public lands or through the purchase of fee title or conservation easement on suitable private lands to ensure protection of the preserve</i>	

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		<i>lands in perpetuity. The funding shall also include the amount necessary to maintain, monitor, and provide for remedial actions to ensure the establishment of the species at the new location.</i> <i>Determinations of significance shall at a minimum, be made in consideration of the following criteria:</i> <i>- The status of the species in question (officially listed by the State or Federal Endangered Species Acts, candidate species, species of special concern, etc.)</i> <i>- The relative density and distribution of the on-site occurrence to typical occurrences of the species in question.</i> <i>- The habitat quality of the on-site occurrence relative to historic, current, or potential disturbance to the population.</i>	

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Impact		Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.4-5	Implementation of the proposed project will result in the loss or destruction of potential habitat for the Stephens' kangaroo rat. This is a <i>significant impact</i> .	S	4.4-5 <i>The City of Murrieta shall require all project proponents proposing development in SKR habitat to participate in the Stephens' Kangaroo Rat Habitat Conservation Plan. This plan will allow incidental take under section 10(a) of the Endangered Species Act. Issuance of the 10(a) permit would enable the City to issue development permits resulting in the "incidental take" of SKR, where take is defined as any activity that would harm, kill, harass, or endanger SKR in the course of construction.</i>	LS
4.4-6	Implementation of the proposed project may result in the loss or destruction of rare, threatened or endangered plant species. This is a <i>significant impact</i> .	S	4.4-6(a) <i>Implementation of policy COS-2.1(f) which states that development projects will assess the total habitat value of a site rather than simply the presence or absence of special-status species.</i> 4.4-6(b) <i>Implement Mitigation Measure 4.3-4.</i>	LS
4.4-7	Implementation of the proposed project will result in the loss or degradation of undeveloped habitat areas connecting to the Santa Rosa Plateau Ecological Reserve. This is a <i>significant impact</i> .	S	4.4-7(a) <i>The Land Use Plan shall be modified, designating as open space a corridor along Cole Creek connecting to Murrieta Creek and to the areas of designated open space to the south. Said corridor shall be maintained in a natural condition to promote the movement of wildlife.</i>	LS

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4.5 Population and Housing		4.4-7(b) <i>Prior to approval of projects proposed within Cole Canyon, the City of Murrieta shall require that the project proponent prepare, a plant and wildlife management plan. The project proponent shall work in cooperation with The Nature Conservancy and reserve managers in developing and implementing the plan in order to conserve and protect biological resources in this area.</i>	
4.5-1 Upon buildout of the General Plan, an additional 38,255 dwelling units could be added to the housing stock of the City and the sphere of influence. This is considered a <i>less-than-significant impact</i> .	LS	4.5-1 <i>None required.</i>	N/A
4.5-2 Upon buildout of the General Plan, the population of the General Plan area would increase by about 105,450 persons. This is considered a <i>less-than-significant impact</i> .	LS	4.5-2 <i>None required.</i>	N/A
4.5-3 Upon buildout of the General Plan, it is projected that the employment in the City could increase by up to 63,000 jobs. This is considered a <i>less-than-significant impact</i> .	LS	4.5-3 <i>None required.</i>	N/A

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Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.6 Utilities			
4.6-1 Buildout under the plan would result in the consumption of approximately 1,836 million kilowatt hours (mkwh) per year of electricity. This would result in a net increase in consumption of 1,494 kwh per year or a 435 percent increase over existing levels. This is a <i>less-than-significant impact</i> .	LS	4.6-1 <i>None required.</i>	N/A
4.6-2 Buildout of the Murrieta General Plan would result in the consumption of approximately 9,077 million cubic feet per year of natural gas. This would represent a net increase of 7,336 million cubic feet per year (421 percent) of natural gas over existing levels of consumption. This is a <i>less-than-significant impact</i> .	LS	4.6-2 <i>None required.</i>	N/A
4.6-3 Buildout of the proposed General Plan would result in the consumption of approximately 15,760 million gallons of water per year (mgy). This represents a net increase in water use of approximately 12,272 mgy or 352 percent. This is a <i>potentially-significant impact</i> .	PS	4.6-3(a) <i>Include a policy in the Conservation and Open Space Element requiring dual plumbing systems in large new developments as reclaimed water becomes available over the next ten years.</i>	LS

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			4.6-3(b) <i>Include a policy in the Conservation and Open Space Element to encourage the use of reclaimed water where appropriate and feasible as a water source for industrial use and to irrigate large landscaped areas.</i>	
4.6-4	Buildout of the General Plan would result in the generation of approximately 7,288 million gallons per year (mgy) of wastewater. This would result in a net increase of 5,305 mgy or a 268 percent increase over current generation. This is a <i>potentially significant impact</i>.	PS	4.6-4 <i>Implement Land Use Element Policies 3.1, 3.2 and 3.3 in addition to Conservation and Land Use Policy 1.6.</i>	LS
4.6-5	Under the proposed General Plan, approximately 190,724 tons per year of solid waste would be generated. This is an increase of 142,961 tons per year, or 300 percent, over current generation rates. This is a <i>potentially-significant impact</i>.	PS	4.6-5 <i>Implement Conservation and Open Space Policies 4.1-c and 4.2-e, which requires compliance with the source reduction requirements of AB939.</i>	LS
<u>4.7 Public Services</u>				
4.7-1	Buildout under the proposed General Plan would result in a need for approximately 45 additional police officers to maintain existing levels of service. This is a <i>significant impact</i>.	S	4.7-1 <i>Implementation of Land Use Element Policies 3.2a, 3.2b, 3.2c, and Safety Element Policies S-71.a, S-71.b, and S-71.d would reduce this impact to a less-than-significant level.</i>	LS

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4.7-2	Increases in population and employment under the proposed General Plan would increase the need for fire protection and emergency services, requiring additional emergency responses and the need for additional fire protection personnel, fire prevention personnel, and related support facilities. This is a <i>significant impact</i> .	S	4.7-2 Implementation of Land Use Element policies LU3.2a,b,c and Public Safety Element Policies S-61.a, S-61.e and S-61.f would reduce impacts on fire services to a less-than-significant level.	LS
4.7-3	Buildout of the proposed General Plan and associated increases in population would increase the demand for library services. This is a <i>significant impact</i> .	S	4.7-3(a) Implement Land Use Element Policies LU-3.2c, LU-3.3a, LU-3.3e, and Conservation Element Policy COS-5.1b. 4.7-3(b) Include a policy in the Land Use Element requiring new developments to contribute fees to the City Library to offset project demand on library services. Implementation of this mitigation measure would reduce this impact to a less-than-significant level.	LS
4.7-4	Based on a parkland to population ratio of 5 acres/1000 population, buildout of the proposed general plan would generate a need for an additional 603 acres of parkland within the City and sphere area. This is a <i>significant impact</i> .	S	4.7-4 Implementation of proposed Conservation Element Policies COS-7.1a, COS-7.1d, COS-7.1h, and COS-7.2b and implementation of the proposed land use plan would reduce potential impacts on	LS

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Impact		Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
			<i>park and recreational facilities to a less-than-significant level.</i>	
4.7-5	Buildout under the proposed general plan could increase the number of children in the public school districts serving the study area by approximately 42,761 students. This is a significant impact.	S	4.7-5 <i>Implementation of Land Use Element Policies, LU-3.2a,b,c, and LU-3.3e, and the required payment of school fees would reduce impacts on schools to a less-than-significant level.</i>	LS
<u>4.8 Transportation and Circulation</u>				
4.8-1	Growth projected under the General Plan would significantly increase traffic within the City over existing conditions. This is considered to be a significant impact.	S	4.8-1 <i>Implementation of Circulation Element policies C-1.1d through C-1.2g, C-1.4c, C-1.5a, C-2.1a through C-3.1b, C-3.1d, C-3.2a through C-3.2d, and C-5.1a through C-5.1c, involve methods of reducing peak hour traffic flows on local road segments and intersections. Implementation of these policies would reduce traffic impacts to a less-than-significant-level.</i>	LS
<u>4.9 Air Quality</u>				
4.9-1	New development in Murrieta that would occur as a result of the proposed General Plan would increase PM₁₀ (fugitive dust), ROC, NO_x, and CO emissions as a result	S	4.9-1 <i>Implement policies AQ-7.1a, AQ-7.1b, AQ-7.1d and AQ-2.1b would reduce this impact. These policies would reduce air quality impacts from construction by utilizing land use and zoning practices and construction</i>	LS

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<i>of construction related activities. This is a short-term significant impact.</i>		<i>scheduling to reduce dust emissions. The policies also require adoption of incentives, regulations or procedures to reduce particulate matter and fugitive dust from construction related activities.</i>	
4.9-2 Traffic generated by new development allowed under the General Plan could cause fifty-four intersections in the city of Murrieta to exceed SCAQMD standards for localized one-hour and eight-hour CO concentrations. This is a <i>potentially significant impact.</i>	PS	4.9-2 Implementation of General Plan policies AQ-1.1d and e, AQ-2.1d, AQ-3.1a and d, AQ-4.1, and AQ-5.1 which provide for mitigation of project level impacts, participation in regional Congestion Management Plans, and measures to reduce Vehicle Miles Traveled will reduce this impact to a less-than-significant level.	LS
4.9-3 Increases of criteria air pollutant emissions associated with electricity and natural gas use and vehicular traffic would degrade regional air quality, potentially delaying attainment of AQMP and AQIP. This is a <i>significant impact.</i>	S	4.9-3 Implementation of Air Quality Element Policies AQ-1.1 through AQ-8.1 would reduce this impact to a less-than-significant level and assist in the attainment of regional goals for air quality.	LS
4.10 Noise			
4.10-1 The General Plan would substantially increase traffic-generated noise at various locations in the City. This is a <i>significant impact.</i>	S	4.10-1 Implementation of Noise Element policies N1.1a, N1.1c through N1.2e, N2.1a through N2.1g, and N3.1b would reduce noise impacts to less-than-significant levels. These policies	LS

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		would reduce noise impacts through the use of various noise attenuation techniques, modified construction schedules, and zoning procedures.	
4.10-2 New development allowed under the General Plan would increase construction activities in the City. This increase would result in an increase in noise impacts during the construction phase. This is a <i>significant short-term impact</i> .	S	4.10-2 Implementation of Noise Element policies N1.1b and N3.1a, which list such methods as: Temporary noise attenuation barriers; Preferential location of equipment; and Use of current technology and noise suppression equipment, would reduce short-term impacts from construction to less-than-significant levels.	LS
4.10-3 The General Plan would allow changes in existing land use patterns. This change may create incompatible noise/land use relationships for existing and new developments. This is a <i>potentially significant impact</i> .	PS	4.10-3 Implementation of Noise Element policies N1.1a through N1.2e, N2.1a through N2.1g and N3.1b as summarized in this section would reduce this impact to a less-than-significant level.	LS
4.11 Health and Public Safety (Risk of Upset)			
4.11-1 Future development allowed under the proposed General Plan may expose residents to hazardous materials being transported or used in adjacent industrial	S	4.11-1 Implement proposed policies S-10.1a through S-10.3b which provide for coordination with the Riverside County Health Department in the management and regulation of hazardous substances, and, control of transportation	

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	and commercial operations. This is considered a <i>significant impact</i> .		routes for hazardous materials through the City. These and other policies in the proposed Safety Element of the Murrieta General Plan would reduce this impact to a less-than-significant level.	
4.11-2	Development as proposed under the Plan would increase the demand for emergency services. This is a <i>potentially significant impact</i> .	PS	4.11-2 Implementation of proposed policies S-8.1a through S-8.1d, specifying continued updates to the City of Murrieta Multi-Functional Hazard Plan and expansion of emergency preparedness and disaster response programs reduce this impact to a less-than-significant level.	LS
4.11-3	Future development within the General Plan area could expose residents to serious hazards due to the high potential for large scale wildland fires. This is considered a <i>significant impact</i> .	S	4.11-3 Implementation of proposed policies S-6.1d through S-6.1n which specify maintenance and strengthening of review procedures for high fire hazard areas and other relevant requirements related to fire protection and prevention reduce this impact to a less-than-significant level.	LS
4.11-4	Future development within the study area could be subject to potential crash hazards associated with French Valley Airport operations. This is a <i>potentially significant impact</i> .	PS	4.11-4 Implementation of proposed policies S-9.1a through S-9.1c and S-8.1a through S-8.1d stressing compliance with the FVALUP would reduce this impact to a less-than-significant level.	LS

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4.12 Aesthetics/Views			
4.12-1 New development occurring under the proposed General Plan will replace natural open space and vacant land altering views and potentially degrading the visual quality of the City. This is a <i>significant impact</i> .	S	4.12-1(a) <i>The City shall conduct a study to identify and map significant ridgelines, knolls, canyons and other topographic features that warrant preservation.</i> 4.12-1(b) <i>Include a policy in the Conservation and Open Space Elements replacing or modifying policy COS-3.2c that states that the City shall designate a Hillside Overlay Zone or District and adopt an ordinance or guidelines to regulate development and grading in hillside areas. At a minimum the ordinance/guidelines shall provide grading, landscape, and building regulations and special review procedures, as well as identifying areas for preservation.</i> 4.12-1(c) <i>Until the time that guidelines, ordinances and plans are developed to protect hillsides, ridgelines, creeks, historic districts and scenic highways or roadways, interim procedures shall be put in place to ensure that proposals potentially affecting these</i>	LS

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<i>areas are thoroughly reviewed and conditioned to eliminate significant impacts.</i>			
4.13 Light and Glare			
4.13-1 Development occurring under the proposed General Plan would increase light and glare in the City. This is a <i>significant impact</i> .	S	4.13-1 Land Use and Open Space and Conservation Element policies summarized in this section and compliance with the ordinance established for the Mount Palomar Observatory reduce impacts due to light and glare to a less-than-significant level.	LS
4.14 Cultural Resources			
4.14-1 Future development occurring under the proposed General Plan has the potential to adversely affect historic sites and structures in the General Plan Study Area. This is a <i>significant impact</i> .	S	4.14-1 Implementation of Conservation and Open Space Element Policies COS-5.2a through e, and g, pertaining to preservations of historic sites would reduce this impact to a less-than-significant impact.	LS
4.14-2 Development occurring under the proposed General Plan has the potential to disturb archaeological resources. This is a <i>significant impact</i> .	S	4.14-2 Implementation of Conservation and Open Space Element Policies COS-5.2j, COS-5.2l, and COS-5.2n providing procedures for protection of archaeological resources through the environmental review process, would reduce this impact to a less-than-significant level	

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4.14-3	Development occurring under the proposed General Plan could result in disturbance or destruction of paleontologic resources. This is a <i>significant impact</i> .	S	4.14-3 Implementation of Conservation and Open Space Element Policy COS-5.2m, and COS-5.2n specifying the need for mitigation programs for projects involving grading in High and Undetermined Sensitivity areas (as shown in the MEA), would reduce this impact to a less-than-significant level.	LS

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N/A = Not Applicable

4. ENVIRONMENTAL IMPACT ANALYSIS

This chapter of the EIR analyzes and describes the potential environmental impacts associated with the implementation of the proposed Murrieta General Plan. The environmental impact analysis has been organized into a series of sections each addressing a separate environmental topic. The individual sections are divided into subsections which describe existing conditions and potential impacts related to each topic. Impacts are evaluated for potential significance based on standards of significance which are listed prior to each impact analysis. The impact analysis consists of a series of short impact statements which are each followed by a discussion of the impact and recommended measures designed to mitigate the adverse effects of significant impacts. Impacts statements and mitigation measures are numbered by section for ease of reference. It is the intent of the California Environmental Quality Act (CEQA) to focus on significant impacts, therefore, mitigation is only required to be proposed for significant impacts. The impacts related to the various environmental topics addressed in this EIR are presented in the following sections:

<u>Section</u>	<u>Topic</u>
4.1	Land Use
4.2	Geology, Soils, and Seismicity
4.3	Hydrology and Water Quality
4.4	Biotic Resources
4.5	Population, Housing, and Employment
4.6	Utilities
4.7	Public Services
4.8	Transportation/Circulation
4.9	Air Quality
4.10	Noise
4.11	Health and Safety (Risk of Upset)
4.12	Aesthetics/Views
4.13	Light and Glare
4.14	Cultural Resources

Several of the topics evaluated are related and interdependent. For instance, the primary source of air quality and noise impacts is automobile traffic, therefore, the air quality and noise analyses are based on the future traffic conditions projected in the transportation and circulation section of the EIR. Future traffic conditions are a function of land use and forecast population and employment growth.

LAND USE

SECTION 4.1

4.1 Land Use

about 1,200,000 square feet of commercial building floor area and 578,700 square feet of industrial floor area.

There are eleven approved specific plans within the City of Murrieta and the sphere of influence. Several specific plan areas (i.e., Bear Creek and Joaquin Ranch) share specific plan numbers and have joint or overlapping approvals. These plans account for more than 9,953 acres in the Murrieta General Plan Area and, although not yet fully developed, they have already had a significant impact on land use patterns. The locations of approved specific plans are shown in Figure 4.1-2.

The descriptions of existing land use presented in the section are separated into four geographic areas. The areas are as follows: the area west of Interstate 15 (I-15); the area between I-15 and Interstate 215 (I-215); the area east of I-215; and the sphere of influence.

Incorporated Area West of Interstate 15

The incorporated area west of I-15 is approximately 7,994 acres in size. This area is bordered by the La Crescenta Hills and Santa Rosa Plateau foothills to the west, the Temecula city limits to the south, I-15 to the east and the unincorporated community of Wildomar to the north. This area is characterized by low hills to the north, foothills to the west and flat plains along Murrieta Creek.

According to the 1990 Census, the incorporated area west of I-15 had a population of 3,230 residents and a housing stock of 1,205 units for an average of 2.68 persons per dwelling unit.

This area contains the oldest settlement patterns in the City and the majority of the City's historic structures. There is also a great diversity of single-family homes that range from rural mobile homes to luxury estates in the private Bear Creek community at the Santa Rosa Plateau foothills. The City's primary commercial and industrial land uses are also located in this area.

Key land use features of this area include: Old Town Murrieta, Murrieta Creek, Murrieta Community Hall, Murrieta High School, Bear Creek Airport, and Bear Creek Golf Course. Four approved specific plans are located in this area: Bear Creek, Joaquin Ranch (SP 128), The Vineyard (SP 215), Rancon Business Center (SP 235), and RTC Commerce Center (SP 203).

Incorporated Area Between Interstate 15 and Interstate 215

This area is triangular in shape and totals 5,220 acres, with two sides bordered by I-15 and Interstate 215. The third side is bordered by Rose Hills and the unincorporated community of Wildomar. In 1990, this area had 9,477 residents, 5,189 housing units and an average of 1.83 persons per unit. This area has the largest single-and multiple-family acreage totals of the three areas, with 1,288 and 116 acres respectively.

4.1 LAND USE

INTRODUCTION

This section examines the land use impacts associated with the implementation of the proposed General Plan. The analysis is based on a comparison of existing land use in the City of Murrieta with the land use pattern and associated development intensities contained in the Land Use Element of the proposed General Plan. The Land Use Element addresses land use issues of concern for the entire 45 square mile General Plan Area (which includes City of Murrieta incorporated territory and Sphere of Influence area).

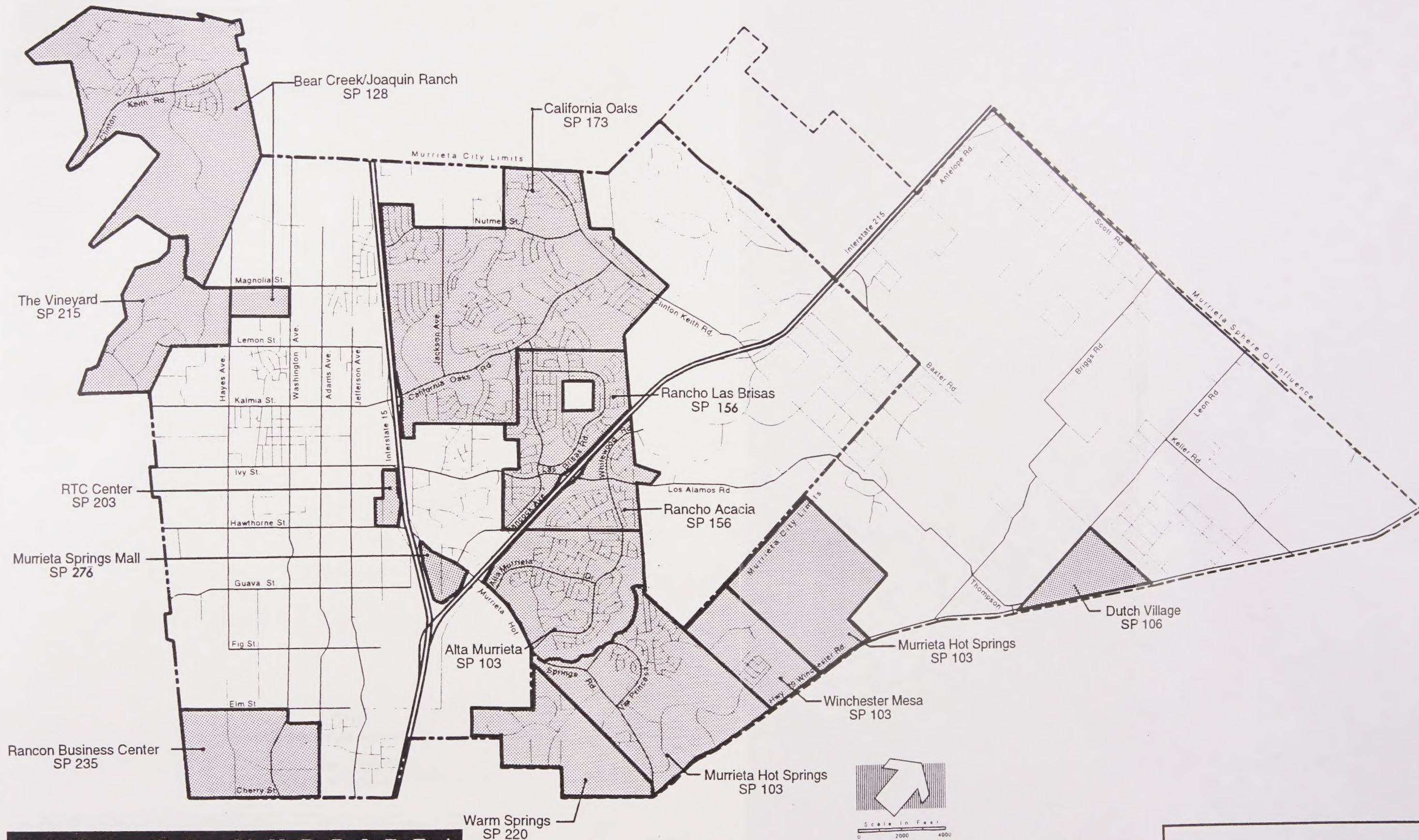
The following discussion of existing land use is summarized from the City of Murrieta Master Environmental Assessment (MEA). An expanded discussion of existing conditions in the City can be found in Chapter 3, Section 3.4, of the MEA. The City of Murrieta MEA Land Use Section is hereby incorporated by reference.

SETTING

The land use section of the MEA describes existing land uses and approved specific plans in the Murrieta study area. The existing land use information is based on the 1992 inventory conducted by the City, which included an examination of assessor records, aerial photographs and field checks.

The City of Murrieta encompasses approximately 26.5 square miles. The sphere of influence includes an additional 18.2 square miles for a total study area of roughly 44.7 square miles or 28,646 acres. According to the recent land use inventory, residential use accounts for 7,604 acres or 26.2 percent of the total study area. Almost two-thirds of the existing residential uses are rural residential (lots larger than one half acre in size). Commercial, industrial and public/institutional uses, which are employment-generating uses, represent only 3.2 percent of the total land use area. The largest segment of Murrieta's existing total land area is undeveloped land, which includes all vacant land and land used for agriculture and mining. Undeveloped land represents 16,598 acres or 57.9 percent of the total study area. Existing land use acreages are presented in Table 4.1-1 and the existing land use pattern is displayed in Figure 4.1-1.

Based on a 1993 survey conducted by City staff and 1990 Census information, it is estimated that there are approximately 10,474 existing dwelling units in the City and about 2,177 existing units in the sphere of influence, for a total of 12,651 units in the General Plan area. According to the California Department of Finance estimates, approximately 75.6 percent of these units are single-family dwellings, 15.6 percent are multi-family units, and 6.7 percent are mobile homes. The General Plan area is estimated to contain



CITY OF MURRIETA

GENERAL PLAN ENVIRONMENTAL IMPACT REPORT

Approved Specific Plans

FIGURE 4.1-2

**TABLE 4.1-1
EXISTING LAND USE INVENTORY**

Existing Land Uses	City Area West of I-15	City Area I-15 to I-215	City Area East of I-215	Sphere of Influence	Total Plan Area	Percent of Total Plan Area
Rural Residential	1,824.3	508.0	885.4	1,694.7	4,912.4	17.2%
Single-family Residential	479.7	1,288.2	442.1	293.7	2,503.7	8.7%
Multiple-family Residential	0.0	116.3	12.9	57.1	186.3	0.7%
Commercial	216.8	162.3	85.0	10.5	475.2	1.7%
Industrial	70.6	0.0	0.0	0.0	70.6	0.3%
Public, Institute	181.3	90.9	30.1	45.1	347.4	1.2%
Parks, Recreation, Open Space	624.8	454.2	85.4	253.3	1,417.7	4.9%
Agriculture, Farm, Mining	552.4	75.4	6.5	1,599.9	2,234.2	7.8%
Vacant Land	3,708.3	1,763.2	1,801.0	7,090.7	14,363.0	50.1%
Streets, Freeways, and other ROW	334.9	761.2	425.2	612.0	2,133.3	7.4%
Totals	7,993.1	5,220.3	3,773.6	11,657.0	28,644.0	100.0%

¹ Does not include areas of The Vineyard Specific Plan that are currently farmed.

² Agriculture, Farm, Mining acreage may include vacant land no longer used for these purposes

Source: The Lightfoot Planning Group, 1992.

4.1 Land Use

This area is characterized by low rolling hills, which are bisected by several seasonal drainages. Two large specific plan areas, California Oaks and Rancho Las Brisas, account for most of the single-family residential development in this area. The residential communities are characterized by mediterranean style architecture, curvilinear street patterns, and uniform single-family lot sizes of 7,200 square feet.

Key land use features of this area include: Sharp Medical Center, California Oaks Golf Course, Sports Park, Murrieta Airport, Road Proposed Historic District Area. Three approved specific plans are located in this area: California Oaks (SP 173), Rancho Las Brisas (SP 156), and Murrieta Springs Mall (SP 276).

Incorporated Area East of Interstate 215

The area located east of Interstate 215 is approximately 3,774 acres in size. Interstate 215 forms the western boundary of the area and the City's sphere of influence borders the east and north. Murrieta Hot Springs (also in Murrieta's sphere of influence) and the City of Temecula are located along the southern border of the area. This area is characterized by flat plains and rolling hills. According to the 1990 Census, this incorporated area had 6,350 residents, 2,522 dwelling units and an average of 2.52 persons per dwelling unit.

Key land use features of this area include: Warm Springs Creek, the Hogbacks, Murrieta Hot Springs Road Community Commercial Center, and the proposed Los Alamos Road Historic District. There are two approved specific plans in this area: Rancho Acacia (SP 156) and Alta Murrieta (SP 103).

Murrieta Sphere of Influence

The Murrieta sphere of influence includes 11,657 acres of land. The 1990 population of the area was 4,663 persons and the housing stock consisted of 2,177 dwelling units. The average number of persons per dwelling unit for the sphere area was 2.14 in 1990.

The sphere of influence is bordered by the City of Murrieta to the west, the City of Temecula and state Highway 79 (also the northerly limit of Temecula's sphere) to the south and east, Scott Road and the unincorporated community of Menifee Valley to the north. This area is currently under the jurisdiction of Riverside County. In March of 1992, the Local Agency Formation Commission (LAFCO) approved Murrieta's request that these lands be designated as its sphere of influence for planning purposes.

The area is characterized by rolling hills and flat plains which are bisected by seasonal drainages. Predominant land forms include the oblong hills known as the Hogbacks, Warm Springs Creek, Rose Hills and Briggs Hills. Vacant land represents the largest segment of the sphere's land area.

Key land use features of this area include: Murrieta Hot Springs, Rancho California Golf Course, the Hogbacks, and Warm Springs Creek. There are four approved Specific Plans in this area: Murrieta Hot Springs (SP 103), Warm Springs (SP 220), Winchester Mesa (SP 103), and Dutch Village (SP 106).

Relevant Policies of the General Plan

Collectively, all of the policies of the Land Use Element, as well as certain policies contained in other elements, are designed to avoid or reduce potential adverse impacts associated with land use and new development. Various policies of the proposed General Plan are identified in the following impact discussion as particularly relevant to certain potential land use impacts. The reader is referred to the proposed General Plan for complete descriptions of these policies.

IMPACTS AND MITIGATION MEASURES

The Land Use Element of the Murrieta General Plan indicates City's proposed policies for the distribution, location, and density/intensity of residential, commercial, industrial, and public land uses. These policies are represented in the land use designations on the Land Use Plan of the General Plan.

Residential land uses include six designations, based on the housing type and density (units per gross acre). The residential designations range from large-lot equestrian residential to multi-family development of up to 20 units per acre. The plan includes five commercial categories and two industrial categories. Civic, or public, uses of land are included in the Civic/Institutional designation and may range from scenic open space to public utilities. Public services, such as recreation and education, are also included in the Civic/Institutional designation. The proposed Land Use Plan of the General Plan is presented in Figure 4.1-3, and buildout projections under the Plan are presented in Table 4.1-2.

Standards of Significance

A planning program would be considered to have a significant impact on land use if the proposed plan results in:

- uses incompatible with surrounding uses,
- uses out of character with the surrounding area, or
- a substantial change of existing or planned land use patterns in the area.

The following types of impacts on land use could result from adoption of the proposed General Plan:

- Redefinition of land use categories, including incorporation of density and intensity standards into the Land Use Element, consistent with requirements of Section 65302 (a) of the California State Government Code.
- Changes in the area devoted to specific land uses.
- Adoption of policies which may ultimately affect land use.
- Incompatibility with existing planning programs

Land Use Plan Buildout Projections¹

General Plan Designations	Acres	Dwelling Units			Floor Area (Sq. ft.)
		Low	Midpt./Target	Hlgh	
Equestrian Residential (0-0.4 du/ac) ²	4,119	0	824	1,647	
Rural Residential (0.5-2 du/ac) ²	2,687	1,074	3,224	5,374	
Single Family 1 Residential (2.1-5 du/ac) ³	7,374	14,748	25,809	36,870	
Single Family 2 Residential (5.1-10 du/ac) ³	1,392	6,960	11,136	13,392	
Multi-Family 1 Residential (10.1-15 du/ac) ³	304	3,040	3,648	4,560	
Multi-Family 2 Residential (15.1-20 du/ac) ³	258	3,870	4,128	5,160	
Sub-Total Residential	16,151	29,692	48,769	67,003	
Regional Commercial	422				4,596,000
Community Commercial	580				6,316,000
Neighborhood Commercial	55				599,000
Recreation\Resort Commercial	59				N.A.
Professional Commercial	146				3,180,000
Multiple Use	303	2,000	2,137 ⁴	2,670	660,000
Sub-Total Commercial	1,565	2,000	2,137	2,670	15,351,000
Business Park	1,869				20,353,000
General Industrial	76				1,331,000
Sub-Total Industrial	1,945				21,684,000
Civic/Institutional	339				
Open Space	1,962				
Recreation/Parks ⁵	869				
Streets	5,830				
Sub-Total Other	8,983				
TOTAL PLAN AREA	28,644	31,692	50,906	69,673	37,035,000
Total Population⁶	90,639 (low); 145,591 (med); 199,264 (high)				

Notes:

¹ Includes existing City limits and Sphere of Influence.

² Buildout based on Midpoint Densities.

³ Buildout based on Target Densities.

⁴ Assumes 60% of total land for Area 3 developed with residential uses, utilizing the Target Density.

⁵ Includes golf courses and existing or approved parks. Future Recreation/Parks acreage will increase as each site is located and developed. The identification and development of future parkland may cause a corresponding decrease in total dwelling units and/or acreages in other categories. Assuming the development of parkland identified in the Conservation and Open Space Element, the City would include over 1,600 acres (includes 3 City-wide parks at 60 acres each). Assuming the development of an additional 800 acres of parkland is completed within residential designations, with an average density of 4 units per acre, the overall City-wide buildout totals decrease by an estimated 3,200 units and approximately 9,000 persons.

⁶ Vacancy rate not factored. Population based on 2.86 persons per household.

CITY OF MURRIETA

GENERAL PLAN
ENVIRONMENTAL IMPACT REPORT

**Land Use Plan
Buildout Projections**

TABLE 4.1-2

Residential

- Equestrian Residential (0-0.4 du/ac)
- Rural Residential (0.5-2 du/ac)
- Single-Family 1 Residential (2.1-5 du/ac)
- Single-Family 2 Residential (5.1-10 du/ac)
- Multi-Family 1 Residential (10.1-15 du/ac)
- Multi-Family 2 Residential (15.1-20 du/ac)

Commercial

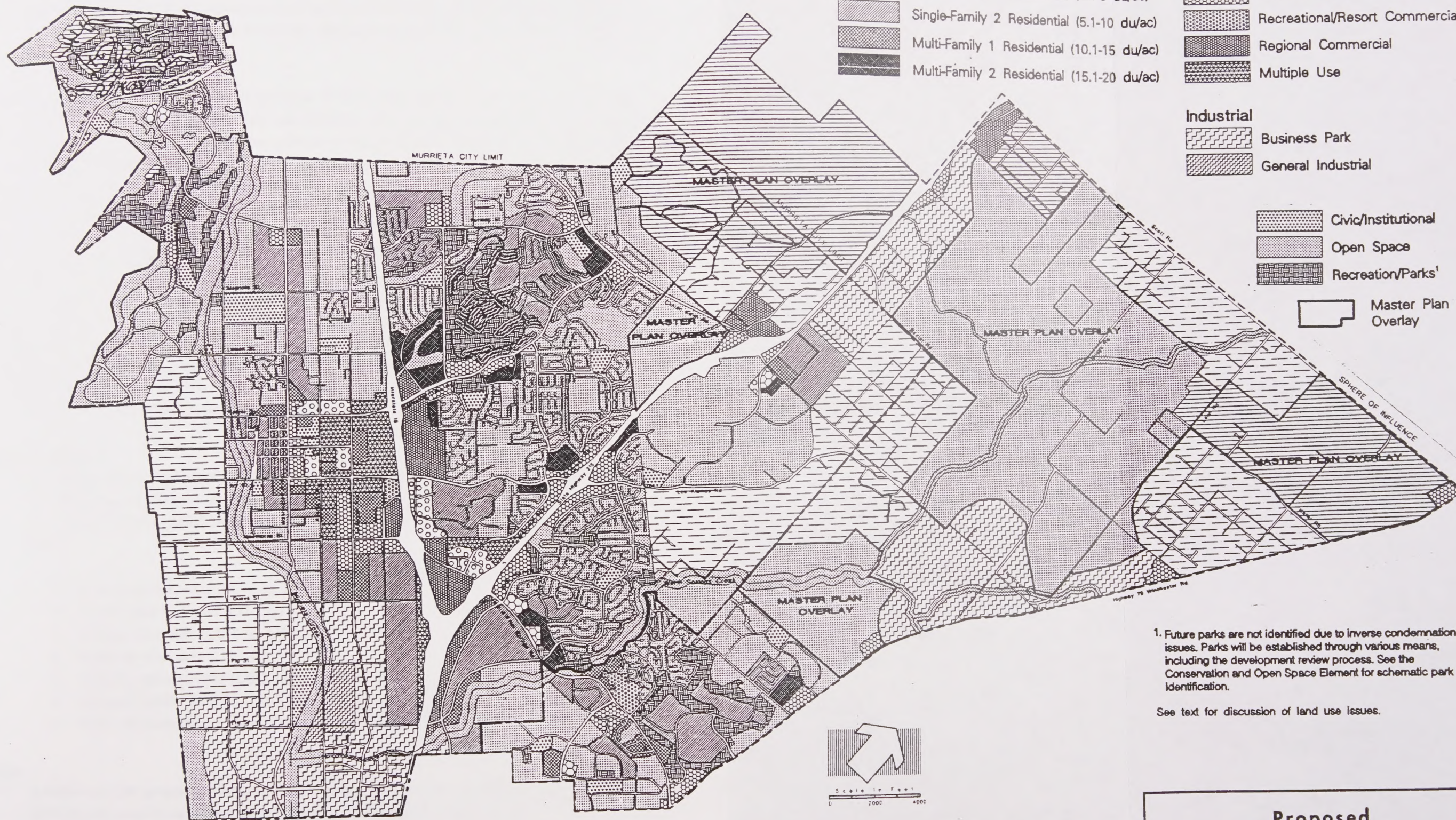
- Professional Commercial
- Neighborhood Commercial
- Community Commercial
- Recreational/Resort Commercial
- Regional Commercial
- Multiple Use

Industrial

- Business Park
- General Industrial

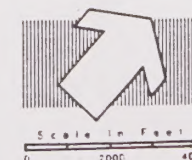
- Civic/Institutional
- Open Space
- Recreation/Parks¹

Master Plan Overlay



1. Future parks are not identified due to inverse condemnation issues. Parks will be established through various means, including the development review process. See the Conservation and Open Space Element for schematic park identification.

See text for discussion of land use issues.



Impact

- 4.1-1 The land use designations and associated density/intensity standards set forth in the General Plan will allow substantial additional development in the City and sphere of influence, potentially resulting in the construction of up to approximately 38,255 additional residential units and about 33,912,800 square feet of additional non-residential floor area. This is a *potentially significant impact*.

The City of Murrieta has a large amount of land area within its corporate limits and sphere of influence that is either vacant or developed at very low rural densities. This includes some land that is currently used for agricultural purposes. The land use policies of the proposed General Plan would allow the development of the majority of this land for urban purposes, resulting in the development of vacant land and the conversion of rural land uses to urban uses. There are currently an estimated 10,474 residential units in the City and about 2,177 residential units in the sphere of influence. Buildout of the General Plan would result in the construction of up to 38,255 new residential units, producing a potential total of 50,906 dwelling units in the General Plan area. This would represent about a 300 percent increase in the total number of residential units. Most of these new units (80%) would be single-family dwellings. The relative increase in non-residential development would be even greater than new residential development. Currently, about 1.2 million square feet of commercial floor area and 578,700 square feet of industrial floor area exist in the General Plan area. Upon buildout of the General Plan, there would be the potential for approximately 15,351,000 square feet of commercial development and 21,684,000 square feet of industrial development to exist in the City and its sphere of influence. This represents more than a 1,100 percent increase in commercial development and a 3,600 percent increase in industrial development.

Mitigation Measures

- 4.1-1 *Collectively, conformance with the Land Use policies of the General Plan are designed to avoid or reduce adverse land use impacts associated with new development and growth. Specifically, implementation of the following Land Use policies will reduce impacts to a less-than-significant level:*

- Residential land uses (LU-1.1e, LU-1.1i, LU-1.1j)
- Commercial land uses (LU-1.2j)
- Multiple land uses (LU-1.3c, LU-1.3g)
- Industrial land uses (LU-1.4g)
- Existing urban services (LU-3.1a, LU-3.1b, LU-3.1c)
- Adequate public facilities (LU-3.2a, LU-3.2b, LU-3.2c)
- Public facilities/master plans (LU-3.3a, LU-3.3b, LU-3.3c, LU-3.3d, LU-3.3e)

Impact

- 4.1-2 Buildout of the proposed General Plan would result in the conversion of vacant and agricultural lands to suburban uses. This is a *potentially significant impact*.

There are currently about 1,418 acres of land in the General Plan area devoted to recreation and open space and approximately 2,234 acres of land that is or has in the past been utilized for agricultural purposes. Although current statistics are not available it has been suggested that much of this agricultural acreage is no longer under production. There are approximately 1,615 acres of land in the General Plan area covered under the Williamson Act, 866 acres of which are located within the sphere of influence. These lands are under a voluntary program that allows property owners of agricultural lands to have their lands taxed on a preferential basis by keeping their lands under a preserve status. The intent of the act is to protect farmland from the pressures of speculative land values. There are also other lands considered important based on statewide maps prepared by the Department of Conservation. Maps showing the location of Williamson Act lands and the location of "Important Farmlands" as designated by the Department of Conservation can be found in the Conservation and Open Space Element Technical Report. The majority of this existing agricultural land (about 72%) is located in the sphere of influence, while most of the recreation and open space land is located within the current City limits (82%). In addition, about 14,363 acres in the General Plan area are currently vacant (which represents about one-half of the entire General Plan area). After buildout of the General Plan, about 2,831 acres of land would be devoted to open space (a 100% increase), but no land would remain exclusively devoted to agricultural use. All vacant land would be developed with urban uses or rural residential uses. The result would be an increase in parkland and dedicated open space and a substantial decrease in informal open space in the form agricultural land and vacant land. Informal open space is privately owned and not available for public use, however, it does significantly contribute to the low-density, rural character of much of the area and the sense of natural openness which currently typifies many parts of Murrieta.

Much of the low density development proposed in the General Plan will help to retain some of the open space character in various parts of the City and sphere. Approximately 4,119 acres in the General Plan area are designated Equestrian Residential (0.0-0.4 units/acre), which is very low density residential development suitable for limited agricultural use and the keeping of livestock. In addition, 2,687 acres in the General Plan area are designated for Rural Residential development (0.5-2.0 units/acre), which is also a low density designation. The Master Plan Overlay will also help preserve some open space on large sites by clustering residential development and leaving portions of each site undeveloped (primarily creek, hillside, and sensitive habitat areas). These designations will help preserve some of the area's rural open space character after development.

Mitigation Measure

4.1-2 *Conversion to suburban uses is a policy decision of the City and cannot necessarily be considered adverse of and by itself. The following policies of the General Plan are intended to partially compensate for the potential loss of open space and agricultural land:*

- Residential land uses (LU-1.1a, LU-1.1b, LU-1.1c)
- Open space (LU-1.7a, LU-1.7b)
- Livestock (LU-2.1a, LU-2.2c)
- Conflicts with existing agriculture (LU-2.3a)

Even with implementation of this mitigation measure impacts associated with the loss of open and agricultural land space remain significant and unavoidable.

Impact

4.1-3 Buildout of the General Plan will alter the character of land use and development in the community through conversion from a largely undeveloped, semi-rural area to a fully developed area composed primarily of suburban uses. This is a *potentially significant impact*.

Currently, about 46 percent of the City and 74 percent of the sphere of influence is either vacant or in agricultural use. Upon buildout of the General Plan, no vacant land would remain and no land would be exclusively devoted to agricultural uses (the Equestrian Residential category would allow limited agricultural use associated with a single-family residence). Suburban uses, consisting of all uses other than open space and Equestrian/Rural Residential, would account for 69 percent of the City and sphere of influence upon complete buildout of the General Plan. Due to these changes in the pattern of land use and development, many of the rural qualities of the area would gradually diminish and the community's character would become largely suburban in nature. Certain land use designations proposed in the General Plan are intended to retain some of the rural qualities which exist in the community today (see the discussion of Impact 4.1-2 above), however, certain basic characteristics of the community would still change substantially upon buildout of the General Plan. These include: loss of agriculture, reduced open space, a continuing shift from rural to suburban densities, substantial new non-residential development, and expanded infrastructure and public facilities.

Mitigation Measures

4.1-3 *The General Plan contains policies designed to preserve and maintain certain aspects of the community's existing rural character. Other policies are provided to promote a desired character in new development. These policies are:*

- Development regulations (LU-1.8a, LU-1.8b, LU-1.8c, LU-1.8e)
- Design guidelines (LU-2.2a, LU-2.2b, LU-2.2c, LU-2.2d, LU-2.2e)
- Conflicts with existing agriculture (LU-2.3a)
- Historic Murrieta (LU-4.1a, LU-4.1b)
- Los Alamos District (LU-4.2b)

Impacts are considered less-than-significant with the implementation of these policies.

Impact

4.1-4 As new development occurs, the potential exists for incompatibilities between land uses to occur. This is a *potentially significant impact*.

Whenever new development occurs, especially when uses are permitted to locate in close proximity to each other, there is a potential that incompatibilities could occur between nearby land uses. Typical

GEOLOGY, SOILS, AND SEISMICITY

SECTION 4.2

Cajalco - Temescal - Las Posas Association: This association is located in the northwest and southwest portions of the City and covers a large portion of the General Plan area. The soils are well-drained, on slopes ranging from 2 to 25 percent. **Friant - Lodo - Escondido Association:** This association is located in the southwest portion of the General Plan area. The soils are mainly on islands of metamorphosed sandstone and mica-schist rock in the intermediate valley and on foothills of the Santa Ana Mountains. They range from well-drained to excessively drained, on slopes ranging from 2 to 25 percent. **Cieneba - Rock Land - Fallbrook Association:** This association is limited to a small area in the southwestern portion of the General Plan area. The soils occur mainly on granitic rock islands in the intermediate valleys and on the foothills of the San Jacinto Mountains. They are well-drained, on slopes ranging from 2 to 25 percent. **Hanford - Tugunga - Greenfield Association:** This association covers only a small portion of the General Plan area. The soils formed in granitic alluvium washed from the uplands, and occur on short alluvial fans and on flood plains. They are excessively drained to well-drained, on slopes ranging from 0 to 25 percent. **Monserate - Arlington - Exeter Association:** This association occurs primarily in the central western portion of the General Plan area, south of Interstate Highway 15. The soils occupy old alluvial fans and terraces. These areas are dissected by drainageways, or *barancas*, that have flat bottoms and steep sides. The soils of this association formed in granitic alluvium washed from the San Jacinto Mountains, from the Woodcrest area, and from islands in the valley floors. They are well-drained, on slopes ranging from 0 to 25 percent.

FAULTING AND SEISMIC HAZARD

The City of Murrieta is located in a region of historic seismic activity. Portions of the City have been designated under the Alquist-Priolo Special Studies Zones Act of 1972 because of the presence of active fault systems, the Wildomar and Wolf Valley Faults, within the City limits. (See Figure 4.2-2). These zones are revised periodically, and extend 200 to 500 feet on either side of identified fault traces. No structures for human occupancy may be built across an identified active fault trace, and an area of 50 feet on either side of an active fault trace is assumed to be underlain by the fault, unless proven otherwise. Proposed construction within the Special Studies Zone is permitted only following the completion of a fault location report prepared by a California Registered Geologist. Other active and potentially active faults within 50 miles of the project area are as follows: Elsinore Fault Zone, San Andreas Fault Zone, Newport-Inglewood Fault Zone, San Jacinto Fault Zone, Agua Caliente Fault Zone and the Murrieta Hot Springs Fault (See Figure 4.2-2).

The most likely source of strong ground motion in the region would be a major earthquake (between M 7.0 and M 8.25) on the San Andreas fault, the main trace of which is about 50 miles northeast of the City. This fault is classified as active with a reoccurrence interval of 100-years to 200-years. It is likely that a similar pattern of seismicity will persist into the foreseeable future. The probability of a M 7.5 or greater earthquake along the Mojave segment of the San Andreas fault zone is estimated to be 30 percent by the year 2018.

4.2 GEOLOGY, SEISMICITY, AND SOILS

INTRODUCTION

This section discusses geologic hazards in the City of Murrieta. Topography, geology, faulting, seismicity, and soils are summarized as a basis for discussion of geotechnical constraints associated with implementation of the proposed Murrieta General Plan.

Information for this section of the EIR Area in part derived from the Safety Element of the Riverside County General Plan, the Southwest Community Plan Final Environmental Impact Report, and information from the California Division of Mines and Geology, the U. S. Department of Agriculture Soil Conservation Service, and the U.S. Geological Survey.

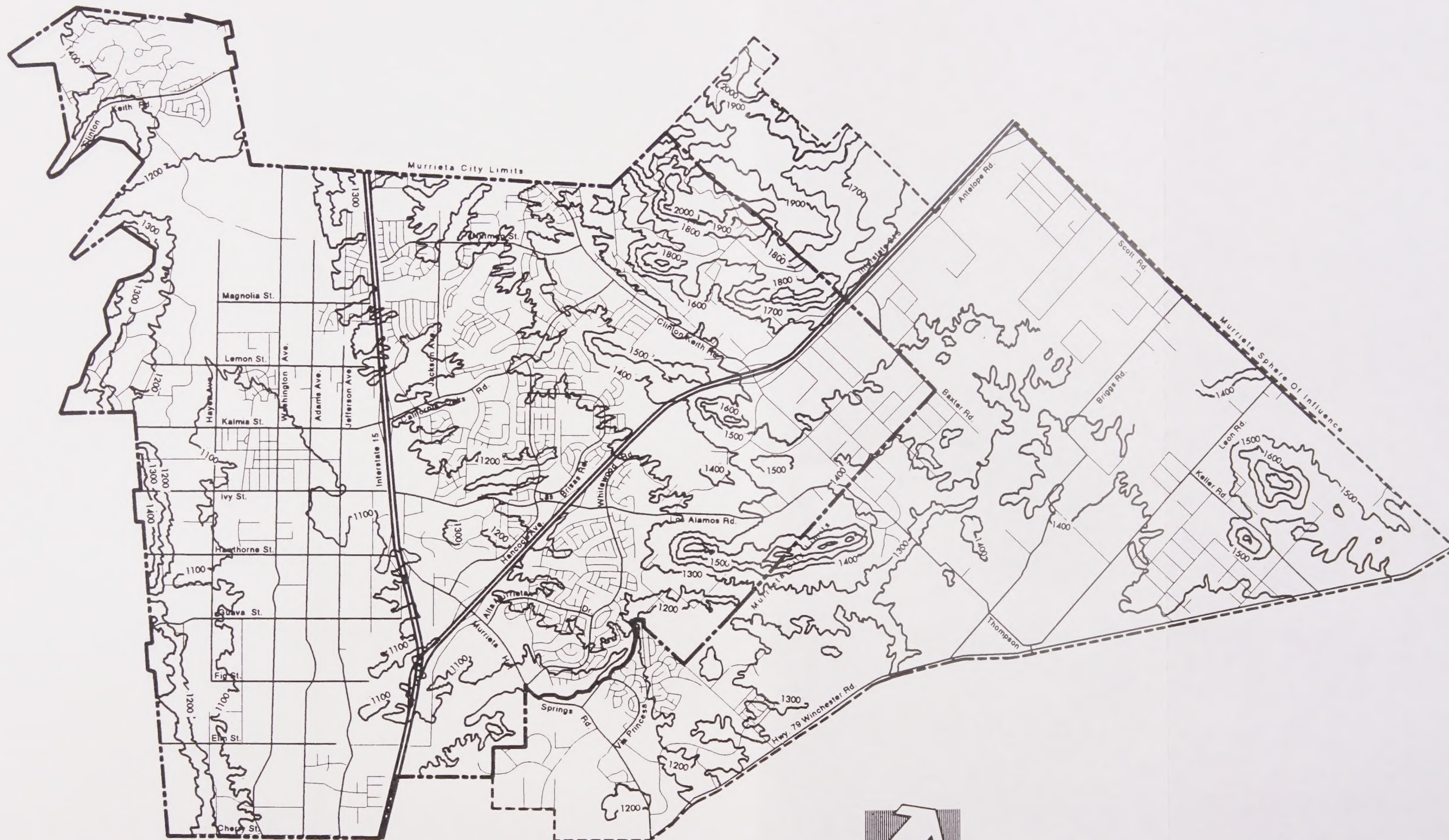
The following discussion is summarized from the City of Murrieta Master Environmental Assessment (MEA). An expanded discussion of existing conditions related to geology, seismicity, and soils and various maps identifying areas with environmental constraints are provided in Chapter 3, Section 3.1 of the MEA. The City of Murrieta MEA, Geology, Seismicity, and Soils Section, is hereby incorporated by reference.

SETTING

GEOLOGY

The General Plan area encompasses approximately 26.5 square miles within the Temecula Valley, in the Peninsular Ranges Geomorphic Province, which extends north from Baja California to the San Gabriel Mountains. The Santa Ana Mountains and the Santa Rosa Plateau are located directly to the west, the Santa Margarita and Agua Tibia ranges are to the south, and the San Jacinto ranges lie approximately 35 miles to the east. The elevations within the General Plan area range from approximately 1,030 feet above mean sea level (+1,030 feet msl) in the Temecula Valley to about +2,120 feet msl in the rolling hillsides north of the valley, and to about +1,620 feet msl on the steep hillsides of Slaughterhouse Canyon in the western portion of the General Plan area (See Figure 4.2-1).

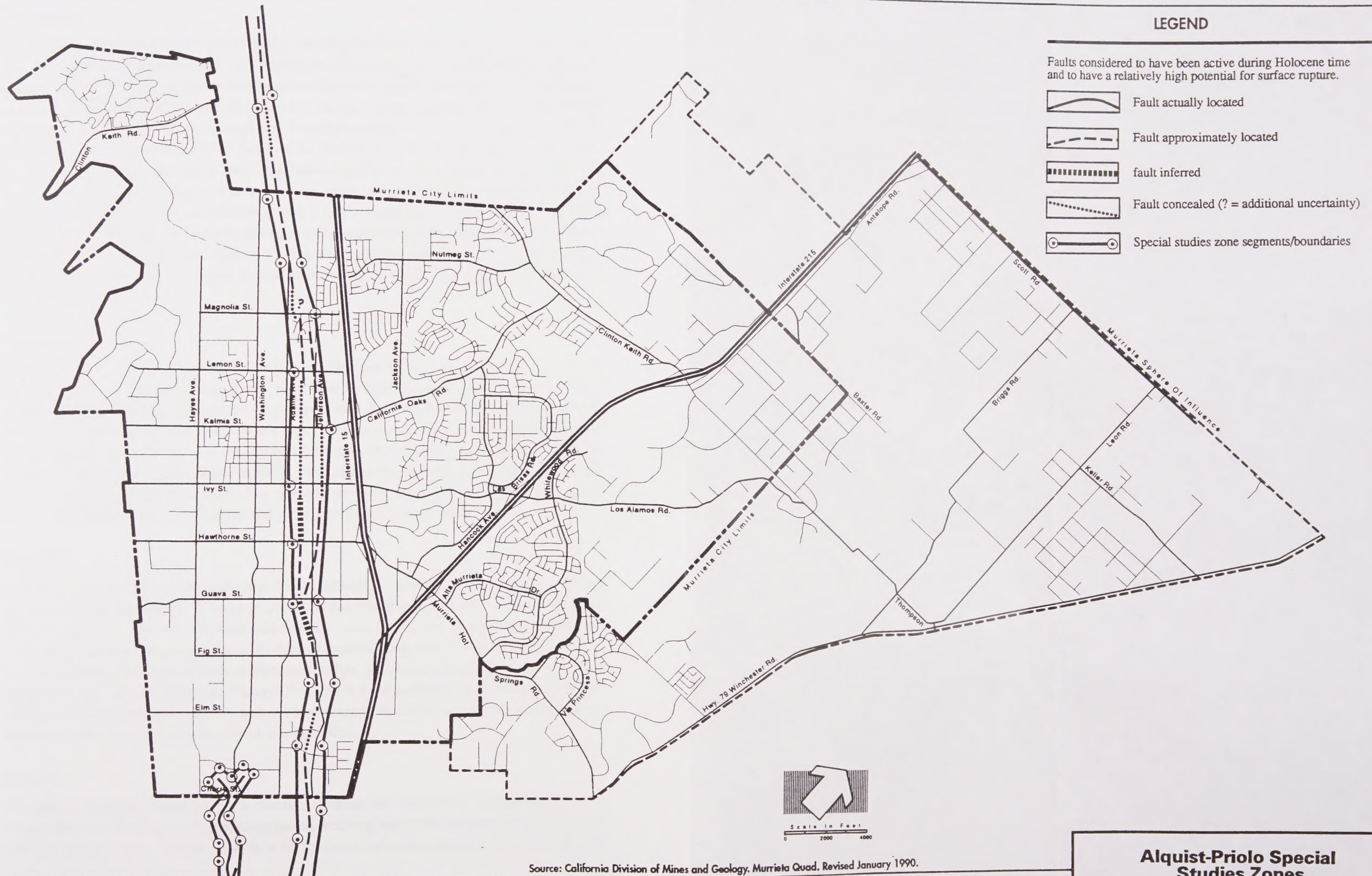
The 1971 United States Soil Conservation Survey map indicates that the main soil types in the City of Murrieta are formed from alluvium with mixed sources and have slopes of less than two percent. Runoff rates and erosion hazard are generally low because of large areas of flat topography. Permeability is typically low. The majority of the area is underlain by soils of five soil associations with minor occurrences of several other soil types. The five major association have been identified as follows:



CITY OF MURRIETA
GENERAL PLAN ENVIRONMENTAL IMPACT REPORT

TOPOGRAPHICAL MAP

FIGURE 4.2-1



Alquist-Priolo Special Studies Zones

FIGURE 4.2-2

Liquefaction

Liquefaction is a response to severe groundshaking that can occur in loose soils. This transformation from solid state to liquid state (quicksand), as a response to seismically induced groundshaking, can cause structures supported on the soils to tilt or settle (sometimes very violently and rapidly) as the supporting capabilities of the soils diminish with the increase in the time of groundshaking. Ground failures from liquefaction are limited to certain geologic and hydrologic conditions and certain types of materials. Conditions necessary for liquefaction to occur are the presence of loose, cohesionless, uniformly-sized, fine sandy to silty sandy materials, a water table within about 30 feet of the ground surface, and cyclic loading of relatively long duration. By these criteria, water saturated clay-free sediments in the most recent Holocene unit generally are expected to have a high susceptibility to liquefaction. Areas within the General Plan area that have a potentially significant liquefaction hazard are located in the southern portion of the City west of Interstate Highway 15 from Hawthorne Street, from Murrieta Hot Springs Road east to Cherry Street, and from Jefferson Avenue south to Douglas Avenue. (See Figure 3.1-5 of the City of Murrieta MEA).

Landslide

The landslide risk within the majority of the General Plan area is low. However, there are areas of landslide risk where there is steep topography, particularly on highly fractured bedrock, and where there is rapid stream undercutting. Many of the steep slopes within the General Plan area have large granitic outcrops and boulders that if not connected to a larger sub-surface rock structure could become loosened and fall during a seismic event. Factors which may increase the probability of a landslide include the placing of loads at the tops of slopes, vibration from earthquakes or construction activities, and the removal of major vegetation from slopes. Four landslides have been mapped within the General Plan area, two in Slaughterhouse and Cole Canyons, and two north of the Wildomar fault zone.

Subsidence

Subsidence or settlement is a loss of elevation of the land surface caused by rearrangement of individual soil grains into smaller spaces. It occurs in poorly unconsolidated soils, primarily recent alluvium and poorly compacted or improperly founded fills, and may result from natural or man-made causes. The more significant natural causes are seismically-induced groundshaking, local or regional tectonic settling, and heavy rainfall, which is more likely to affect unstable fills. Man-induced causes of subsidence include groundwater, oil, and gas withdrawal. The area from Guava Street southerly to Cherry Street and from Jefferson Avenue westernly to Hayes Avenue has been zoned by Riverside County as an area of potential subsidence. (See Figure 3.1-6 of the City of Murrieta MEA).

Fissuring

The potential for ground fissuring exists in Murrieta, Temecula and Wolf Valley. Ground fissures can be attributable to several causes or combination of causes, including landsliding, volcanic activity, contracting soils and seismic activity. Ground fissuring in the Temecula Valley area appears to be a direct result of

4.2 Geology, Seismicity and Soils

seismic activity in the Elsinore and San Jacinto fault zones, combined with secondary ground failures caused by subsidence. Ground fissures have been identified in the southern portion of the City of Temecula. This fissure is approximately 5 miles in length and begins just north of Winchester Road, west of Murrieta Creek, continuing south toward Wolf Valley. It is expected that this fissure will continue to lengthen, eventually reaching the southern boundary of Murrieta.

In addition to this fissure, the City of Murrieta has established a Special Geologic Report Zone in the northern corner of the City to examine fissuring and subsidence activity as part of the construction permitting process. According to this study, fissuring was located in areas that were subject to four conditions: 1) the presence of partially saturated alluvium, 2) fill embankments or other stresses are imposed, 3) groundwater rises have occurred, and 4) steep subsurface alluvium/bedrock transitions exist.¹ Other similar zones may be established in the future in other parts of the City. The purpose of requiring studies is to determine the nature of the ground failures and the types of measures necessary to reduce, eliminate or avoid their effects on structures to be built in the zone. Such measures must be applied prior to the issuance of building permits within the zone. If possible, remedial measures should be applied to structures already affected by fissuring. (See Figure 3.1-7 of the City of Murrieta MEA).

Relevant Policies of the Murrieta General Plan

There are 9 policies within the Safety Element of the proposed General Plan that address geo-seismic hazards. These policies are briefly summarized below.

Policy S-1.1a: Consider formation of "geologic hazard abatement districts" as authorized by Public Resources Code Section 2,600 et seq., where existing or proposed development is threatened by geologic hazards and where feasible prevention, mitigation, abatement or control of such hazards is feasible.

Policy S-1.1b: In planning new roadways, fault zones should be avoided. If such construction is necessary, special engineering practices and roadway design should be employed to reduce damage under seismic conditions. New roadways should not cross fault zones unnecessarily.

Policy S-1.1c: All development within the Alquist-Priolo Special Studies Zones shall be subject to the restrictions and requirements of the Special Studies Act.

Policy S-1.1d: Collect and maintain current information on geologic hazards and update City-wide mapping of geologic hazards on a continual basis.

Policy S-1.1e: Prior to site development, projects located in areas where liquefaction, subsidence, landslide and fissuring are considered hazards shall be required to prepare geologic reports addressing site conditions, potential risk, and mitigation, to the satisfaction of the City Engineer.

Policy S-1.1f: Require new projects to be designed and developed in accordance with recommendations set forth in any required geotechnical or geologic reports by conditioning projects, evaluating construction plans, and conducting field inspections.

Policy S-1.1g: Require all grading and construction plans to clearly indicate required mitigation measures.

Policy S-1.1h: Lower the intensity of development as the steepness of terrain increases in order to minimize grading and prevent creation of land instability. Development of slopes (exceeding 25 % steepness) will be regulated through the adoption and implementation of Hillside Development Guidelines.

Policy S-4.1b: The City shall develop and apply standard grading conditions that address erosion and sedimentation control.

There are 3 policies within the Conservation and Open Space Element of the proposed General Plan that address geo-seismic hazards. These policies are briefly summarized below.

Policy COS-3.2a Preserve significant slopes equal to or exceeding 50% (2 horizontal units to 1 vertical unit), with a vertical rise of 30 feet or more.

Policy COS-3.2b Apply conservation standards to minimize grading in areas of slopes equal to or exceeding 25% and reduce negative aesthetic impacts of such grading.

Policy COS-3.2c Develop hillside management guidelines to address the resource conservation issues of fires, earthquakes, mudslides, and soil erosion. The guidelines should define critical hillside areas within the Plan Area and provide development standards and policies regulating development, including such features as grading, unit type, siting of structures, preservation of natural topography, and other appropriate hillside development techniques.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

Section 15126 (a) of the CEQA Guidelines stipulates that the EIR analyze "significant environmental effects the project might cause by bringing development or people into the area affected." Section 15382 of the guidelines defines a significant effect on the geologic environment as a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project."

In accordance with the CEQA Guidelines, impacts are considered significant if one or more of the following conditions would result from implementation of the proposed project:

- Exposure of people or structures to geologic hazards, soil and/or seismic conditions so unfavorable that they could not be overcome by special design using reasonable construction and/or maintenance practices.
- Location of the site within an Alquist-Priolo Special Studies Zone, or a known active fault zone, or an area characterized by surface rupture that might be related to a fault.
- Construction on substrate that consists of material subject to liquefaction or other secondary seismic hazards in the event of groundshaking.
- Increase in wind or water erosion of soils, either on or off site.
- Landsliding or excessively steep slopes that could result in slope failure.
- Deformation of foundations by expansive soils (those characterized by shrink-swell potential).
- Under the State of California Mining and Reclamation Act (SMARA), the location of a site within an area classified as MRZ-2 which may affect long-term supply of mineral and/or petroleum resources.

Evaluation of the significance of potential impacts resulting from implementation of the General Plan in relation to this criteria is provided in the following discussion.

In general, it is the responsibility of a project applicant (sponsor, developer, or owner) to implement mitigation measures through the planning, design, construction and occupation phases of individual projects. Specific mitigation measures would be approved at the time of filing of Tentative Maps, and would be required as part of the grading/construction permit process. It is the responsibility of the lead agency to monitor mitigation measures through plan checking, periodic reporting procedures, and on-site inspections. Many "monitoring" programs already exist in the form of planning policies, required standards of construction, and permit approval procedures that are administered routinely by the City Engineer.

Detailed recommendations regarding specific techniques and designs to reduce, eliminate or avoid geotechnical hazards would be provided by the reports of geotechnical investigations for specific projects within the City. Field inspection and site observation are also part of the mitigation of geotechnical effects. Completed site development plans would be reviewed by the City to determine conformance with specific recommended geotechnical procedures. Final field inspection of the mitigation measures would

be performed by a Certified Engineering Geologist (CEG) during earthwork and construction operations. The observation of cut, fill, backfill, foundation excavations, and the preparation of pavement subgrades would take place during these phases of site development to insure that the recommendations of required geotechnical reports are implemented.

The proposed Murrieta General Plan has been reviewed to determine whether implementation would expose people in the City to greater, lesser, or the same geologic hazards that could currently be caused by seismically induced groundshaking, secondary ground failure, rock or soil instability, or other adverse geo-seismic conditions. The policies included in the Murrieta General Plan should reduce, eliminate or avoid the potential geo-seismic effects associated with development occurring under the General Plan.

Impact

- 4.2-1 **Construction activities would expose soil to erosion; dust would be generated during demolition, clearing, hauling, earthmoving, and grading. This is a *potentially significant impact*.**

Exposed earth surfaces would be subject to wind and rain action. If slopes and exposed surfaces are not protected by vegetation, uncemented soils could experience rapid erosion during heavy precipitation. This could lead to loss of soil as a natural resource and possible sedimentation of the storm drain system. Soil erosion and sedimentation are of particular concern in creekside areas and areas with slopes greater than 25 percent.

Mitigation Measure

- 4.2-1(a) *Implementation of Policy S-4.1b. This policy ensures that new development will include erosion and sedimentation controls.*
- 4.2-1(b) *A policy should be added to the General Plan Public Safety Element stating that: An erosion and sediment control plan should be implemented for the grading and construction phases of major construction projects and projects proposed in areas with slopes above 25 percent. In accordance with City guidelines specific erosion control measures should be designed by the project team and reviewed by the City prior to issuance of a grading or construction permit.*

Implementation of the above mitigation measures would reduce this impact to a *less-than-significant level*.

Impact

- 4.2-2 **New development may create or increase slope instability and related hazards. This is a *significant impact*.**

Murrieta is located primarily in the Murrieta Basin which is underlain by alluvium. Grading and excavating in areas underlain by alluvium has the potential of creating unstable slope conditions. Slope instability can also occur in areas of steep topography. Landslides generally occur on unstable slopes and

4.2 Geology, Seismicity and Soils

are influenced by activities such as placing loads at the tops of slopes, vibrations from construction activities, heavy rain, and the removal of vegetation from slopes. Landslides have been mapped in Slaughterhouse and Cole Canyons and north of the Wildomar fault line, and it is known that there are areas with granitic outcroppings and boulders that could present a hazard to development. All areas of the City, independent of soil type, with slopes over 25 percent can be considered landslide and hazard prone, potentially impacting existing and proposed development. Proposed developments in the area north of the Wildomar Fault, and on the hillsides of Murrieta, especially the area surrounding Baxter Road west of I-215 and the area east of Los Alamos Road and north of Whitewood Road, could be subject to these hazards.

Many General Plans historically have recognized that major slope areas in excess of 25 percent are "not readily developable" and "undevelopable", recognizing the cost and engineering difficulties of grading steep slopes as well as their inherent low suitability for development. The State Division of Mines and Geology sets 30 percent as a maximum for developable slopes. Although the City's General Plan does have policies that control development within the 25 to 50 percent range, development within this slope range may be subject to potential hazards and should be carefully reviewed and conditioned. To offset potential impacts within these areas the following mitigation measures should be implemented on a project by project basis, and Mitigation Measures 4.2-2(b) through 4.2-2(c) should also be considered for inclusion in the General Plan as policies.

Mitigation Measure

- 4.2-2(a) *Implement Policy S-1.1h. This Policy discourages development on steep terrain.*
- 4.2-2(b) *Significant areas with slopes of 25 percent or over shall be considered unsuitable for types of development which require extensive grading or land disturbance.*
- 4.2-2(c) *Proposed extensions of urban or suburban land uses into areas characterized by slopes over 25 percent and other generally unstable land with over 15 percent slopes shall be evaluated with regard to safety hazard prior to the issuance of any discretionary approvals.*
- 4.2-2(d) *Consider adoption of a hillside preservation ordinance in order to implement the policies of the Safety Element and other elements of the General Plan.*

Implementation of these mitigation measures or their inclusion in the General Plan as policies would reduce this impact to a *less-than-significant level*.

Impact

- 4.2-3 **Construction of projects in zones of high seismic risk could result in structural damage exposing additional people to hazard from earthquakes. This is a *significant impact*.**

The proposed plan would increase the number of people who would be exposed to landsliding, seismic shaking, liquefaction, fissure, subsidence and associated hazards that commonly occur in a seismically-active area.

The proximity of several active faults indicates the likelihood that the area will be subjected to at least moderate ground motion from earthquakes occurring during the life of the proposed plan. The San Andreas fault is the dominant fault of the region and is capable of producing a maximum credible earthquake of Richter magnitude 8.25. In addition, two Alquist-Priolo Special Studies zones have been identified within the City along the Wildomar and Wolf Valley faults.

Development in the City would be subject to potential damage and loss of life from structural failure and collapse due to ground shaking. Ground shaking generally increases with proximity to the epicenter of the earthquake, but is also dependant on the underlying geology of the area; sites underlain by alluvium are more likely to experience damaging vibration than sites composed completely of bedrock. A large portion of the City is underlain by alluvium, and is therefore particularly susceptible to damage from ground shaking.

Other potential seismically induced hazards in Murrieta include surface rupturing along fault lines. The Alquist-Priolo zones in the City would be susceptible to this type of seismic hazard. Proposed multi-family development west of I-15 between Kalmia and Guava Streets is of concern as these developments lie within or adjacent to the Special Studies Zones.

Portions of the City south of Hawthorne Street between Jefferson Avenue and Douglas Avenue are susceptible to liquefaction due to the high water table in this area. Liquefaction in this area could cause ground failure and structural damage

Another potential hazard is seismically induced subsidence, which is of concern in the area from Guava Street east to Cherry Street and from Jefferson Avenue south to Hayes Avenue.

Mitigation Measure

4.2-3 *In addition to complying with the Uniform Building Code, implementation of Policy S-1.1c and e, would reduce this impact to a less-than-significant level. The components of these policies ensure that projects located in areas subject to seismic hazard prepare reports addressing the hazards and outlining appropriate mitigation.*

Impact

4.2-4 **Construction in zones subject to fissuring could result in structural damage, exposing additional people to risk. This is a *potentially significant impact*.**

Fissures and ground cracks have been identified in the area roughly west of California Oaks Road between I-15 and I-215 and have caused damage to infrastructure in that region. The fissures were found to be

partially caused by development (i.e. compaction of fill) as well as other geologic factors described earlier. Development in that area and in other areas of the City could be subject to additional fissuring if proper mitigation is not implemented prior to and during construction.

Mitigation Measure

- 4.2-4 *Implementation of Policy S-1.1e would reduce this impact to a less-than-significant impact. This Policy requires that projects located in areas where fissuring and subsidence are considered to be hazards prepare geologic reports addressing site conditions, potential risk, and mitigation.*

ENDNOTES

1. Murrieta Special Geologic Study Zone Report. Pacific Soils Engineering. April 17, 1992.

HYDROLOGY AND WATER QUALITY

4.3 HYDROLOGY AND WATER QUALITY

INTRODUCTION

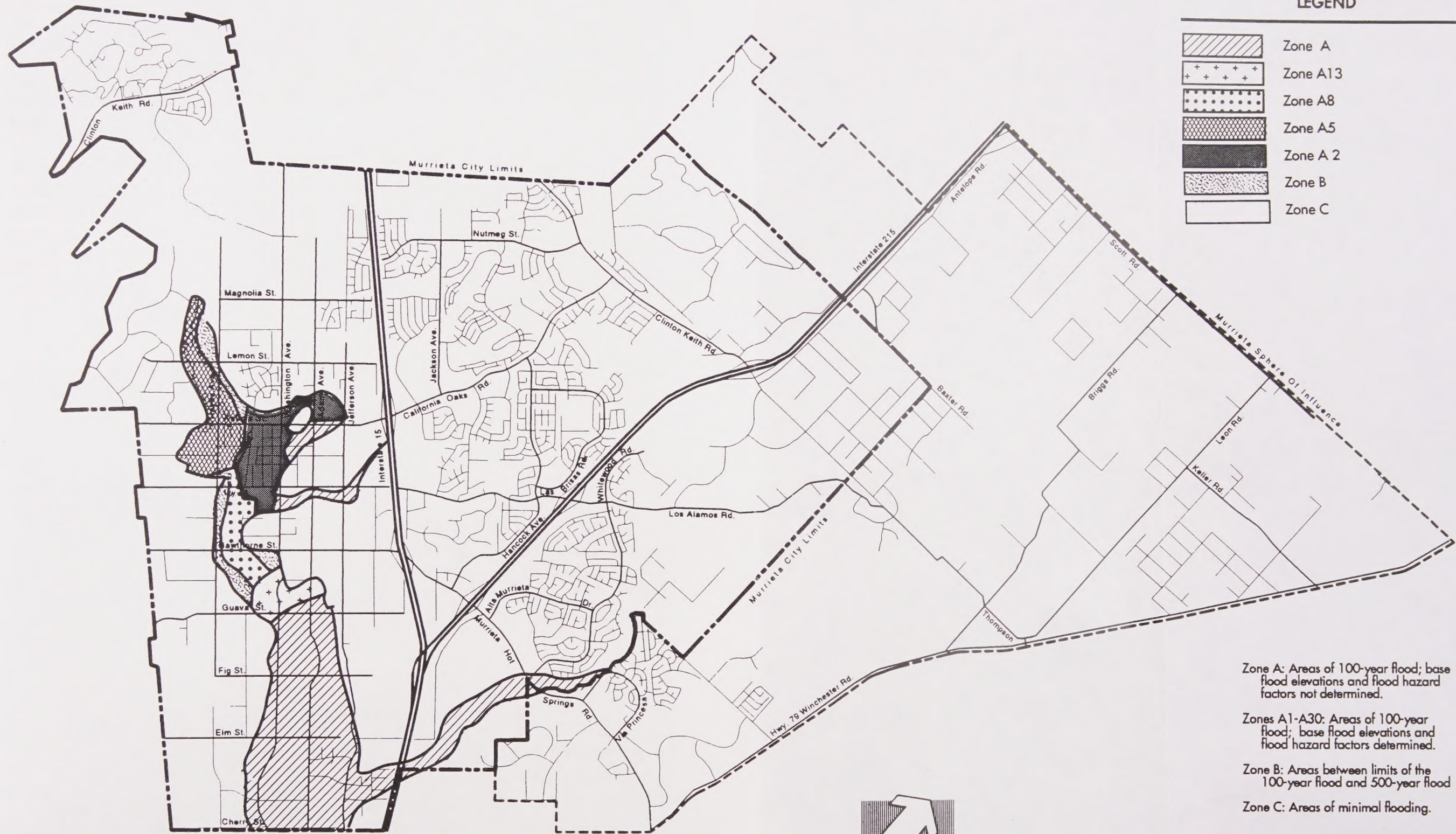
This section describes the potential impacts of the proposed Murrieta General Plan on regional hydrological resources, including surface runoff, groundwater resources, and water quality. Reports and data from the Riverside County Flood Control and Water Conservation District, California State Water Resources Control Board, the City of Murrieta and the Federal Emergency Management Agency, were used as information sources for the analyses in this section of the EIR.

The information in the following setting section has been summarized from the City of Murrieta Master Environmental Assessment (MEA). The City of Murrieta MEA, Hydrology and Water Quality Section, is hereby incorporated by reference.

SETTING

Both the City of Murrieta and the sphere of influence area lie within the inland portion of the Santa Margarita River basin, which encompasses an area of approximately 750 square miles. The major tributaries within the study area are Murrieta Creek and Warm Springs Creek. Murrieta Creek runs from the northern City limit, along the Rancho Temecula Line, to the southern City limit at Cherry Street. In its unimproved state, Murrieta Creek lacks the capacity to safely convey 100 year storm flows through the City. Currently, the Riverside County Flood Control and Water Conservation District is proposing to improve 11 miles of the Murrieta Creek from Rancho California Road in Temecula to upstream of Clinton Keith Road north of the Murrieta City limits, to provide 100-year flood protection to existing development. The majority of Warm Springs Creek is not well-defined and remains undeveloped at this time. The only improvement along its length is the Warm Springs Channel which runs from Murrieta Creek to Interstate 15.

Many areas of the City have a history of severe flooding associated with overflow from the Murrieta Creek and its tributaries. Much of the Murrieta Creek area and sections along Warm Springs Creek are currently without formal flood control systems and as a result drainage, even with moderate rain, is haphazard in the less developed areas of the City. The most recent flooding occurred during storms in January and March of 1993, causing leach fields and septic tanks to discharge into Murrieta Creek as well as causing damage to and closure of a number of roadways. Based on detailed analysis, Flood Insurance Rate Maps from the Federal Insurance Administration identify 100- and 500-year flood boundaries. The 100-year flood zone includes the southern portion of Warm Springs Creek, Murrieta Creek, tributaries to Murrieta Creek, and an area encompassing the intersection of Murrieta and Warm Springs (Figure 4.3-1).



LEGEND

	Zone A
	Zone A13
	Zone A8
	Zone A5
	Zone A 2
	Zone B
	Zone C

Zone A: Areas of 100-year flood; base flood elevations and flood hazard factors not determined.

Zones A1-A30: Areas of 100-year flood; base flood elevations and flood hazard factors determined.

Zone B: Areas between limits of the 100-year flood and 500-year flood

Zone C: Areas of minimal flooding.



A Master Drainage Plan prepared for the Murrieta Creek area by the Riverside County Flood Control and Water Conservation District (RCFC and WCD) evaluates drainage needs and proposes an economical drainage plan which would provide flood protection for both existing and future development in the City. Improvements proposed for Murrieta Creek would consist of the channelization of the creek and its major tributaries, and including several concrete-lined open channels and a small network of underground storm drains.

The Murrieta Creek Area Drainage Plan was prepared through the merger of the Master Drainage Plan for the Murrieta Creek area, dated March, 1986, and the Master Drainage Plan for the Wildomar area, dated August, 1980. This Area Drainage Plan for controlling flood and drainage problems in the Murrieta Creek area concludes that certain flood and drainage facilities are critically needed for an orderly and economical development of the area. This plan consists of the improvement of Murrieta Creek through the Murrieta Creek Flood Control Project, as well as the construction of numerous side drains. The RCFC and WCD applied for permitting of the Flood Control Project in September 1992, under the Clean Water Act.

In addition to the flood hazard currently posed by the Murrieta Creek, the City is also subject to potential flooding in the event of a dam failure at Lake Skinner. Flooding as a result of dam failure is a remote event, however it must be considered and recognized in the planning process.

Inundation from Lake Skinner would cause flooding in the extreme southern portion of the City. In addition, plans are currently being studied for the proposed Eastside Reservoir Project. While flood maps associated with the proposed reservoir were not available for this study it is assumed that portions of the General Plan area could be subject to flooding in the event of dam failure. However, dam failure is considered an extremely remote possibility as dams are designed at a strength much stronger than necessary to survive the largest magnitude possible earthquake without affecting the dam structure. Statistical risk analysis performed as part of the Eastside Reservoir Project EIR indicated the potential of dam failure to be less than one chance in one hundred million under the worst foreseeable earthquake event.¹

The General Plan study area is underlain by two major groundwater basins - the Murrieta-Temecula Basin and the French Basin. The Murrieta-Temecula Basin underlies about 60,000 acres and is the largest groundwater basin in the hydrologic unit assigned to the area drained by the Santa Margarita River. The basin has an estimated storage capacity of 1.2 million acre feet. It underlies the entire Murrieta Creek channel as well as much of Warm Springs and Santa Gertrudis Creeks. It also lies under large portions of Pechanga and Temecula Creeks. The various creeks are important sources of recharge water for the underlying groundwater basin. Water flows out of the basin toward the Lake Elsinore area in the northwest and rises to the Santa Margarita River in the southwest. Many of the wells producing water from this groundwater basin are located in the Murrieta area.

French Basin extends into the study area from the northeast. Underflow from Auld Basin as well as surface streams charge the basin. Water outflows by surface discharge to Warm Springs Creek which crosses the French Valley. The basin underlies approximately 3,500 acres.

Urbanization has two primary effects on groundwater resources. In addition to the increased demands on local water resources, development tends to decrease the natural recharge of groundwater by replacing pervious surfaces with impervious ones and diverting surface water into concrete channels.

Surface water quality within Murrieta Creek is generally good with some high concentrations of Total Dissolved Solids (TDS) during times of low flow and some exceedances of nitrate and phosphate. Groundwater quality varies within the Murrieta and French basins. Water extracted at higher elevations and deeper unconfined aquifers is generally of higher quality.

The level or suitability of water for different uses, particularly, human contact, is defined by varying drinking water standards. Federal drinking water standards set limitations for particular chemical constituents, establish maximum contaminant levels, and set aesthetic standards related to odor and taste for potable water delivered by local agencies. The Federal Water Pollution Control Act requires discharges (from both point and non-point sources) into navigable waters to meet stringent standards regulated under the National Pollution Discharge Elimination System (NPDES).

Relevant Policies of the Murrieta General Plan

There are 17 policies within the Safety Element of the Murrieta General Plan addressing water resources, flooding, or water quality issues. These policies are briefly summarized below:

- Policy S-2.1a:** Cooperate with the Riverside County Flood Control and Water Conservation District in evaluating the effectiveness of existing flood control systems in the City and adjacent jurisdictions and improve and expand these systems as necessary to ensure that there is adequate capacity to protect existing and proposed development from stormwater runoff and flooding.
- Policy S-2.1b:** Identify natural drainage courses and designate drainage easements as required to allow for construction of drainage facilities (if needed to protect the health, safety, and welfare of the community) and/or to preservation of natural drainage courses.
- Policy S-2.1c:** Actively participate in and strongly promote timely completion of regional drainage plans and improvement projects which effect the City.

- Policy S-2.1d:** Develop and maintain flood plain inundation evacuation plans in cooperation with the Riverside County Flood Control and Water Conservation District and the Murrieta Fire Protection District.
- Policy S-2.1e:** All new development, including filling, grading and construction, proposed within designated floodplains, shall require the submission of a study prepared by a qualified hydrologist or engineer that determines whether the development would significantly increase flood hazard. The study shall provide specific mitigation measures that indicate how flood hazards would be eliminated or reduced to a less-than-significant level.
- Policy S-2.1f:** All new construction within the 100-year floodplain shall be flood-proofed, preferably with building pads above 100-year flood levels designed to allow unrestricted flow of floodwaters.
- Policy S-2.1g:** If any fill is placed in floodplain areas, adequate channel capacities or floodplain storage area must be provided for flood waters to off-set displacement of floodplain storage.
- Policy S-2.1h:** Surface water runoff from new development shall be controlled by on-site measures including but not limited to the following:
- Structural controls;
 - Restricting changes in topography;
 - Removal of vegetation; and limited areas of impervious surfaces.
- Policy S-3.1a:** Maintain and update mapping of dam inundation areas within the City as new studies and projects are completed.
- Policy S-3.1b:** Develop dam failure evacuation plans in cooperation with the Riverside County Flood Control District and the Murrieta Fire Protection District.
- Policy S-3.1c:** Prohibit critical and essential uses within designated dam inundation areas.
- Policy S-3.1d:** Discourage high occupancy uses within designated dam inundation areas.
- Policy S-4.1a:** If surface water is collected for discharge, or a surface discharge is contemplated in any new development or as a result of drainage improvements, a National Pollution Discharge Elimination System (NPDES) permit must be obtained from the Regional Water Quality Control Board or local permitting agency.

IMPACTS AND MITIGATION MEASURES

Introduction

This section addresses the potential impacts of the proposed General Plan on hydrological resources, including surface runoff, groundwater resources, and water quality. Changes in land use and development occurring under the proposed plan would cause changes in surface water flows and would impact existing drainage facilities and groundwater resources.

Impacts of the proposed plan were determined by assessing what changes would result in streamflow, sediment generation, groundwater conditions and potential water quality concerns.

Standards of Significance

In accordance with CEQA Guidelines, impacts are considered significant if one or more of the following conditions would result from implementation of the proposed project:

- Significant change in rate and amount of surface runoff or change in amount of water in any water body.
- Substantial degradation of water quality.
- Contamination or substantial reduction of a public water supply.
- Substantial degradation or depletion of groundwater resources.
- Substantial interference with groundwater recharge or direction and rate of groundwater flow.
- Location of facilities within a flood-prone area or alterations to the course or flow of floodwater.
- Substantial flooding, erosion or siltation.
- Alteration of stream flow characteristics which result in erosion, sedimentation or flooding downstream.

Evaluation of the significance of impacts in relation to this criteria is provided in the following discussion.

Impact

4.3-1 Implementation of the proposed General Plan would increase the amount of surface flow generated in the City. Increased surface flow could exacerbate flood conditions and degrade water resources. This is a *potentially significant impact*.

Buildout of the plan would result in approximately 1,000 acres of commercial, 1,800 acres of industrial, and 10,500 acres of residential land being developed above the presently existing land uses. The generation of storm water runoff is dependent upon the percent of impervious area; that is, the percentage of total study area covered by asphalt parking areas and building area. Industrial and commercial areas are anticipated to have a coverage of impervious area of 80 to 90 percent, while multi-family residential may vary in the range of 45 to 90 percent and single family residential from 10 to 55 percent, dependent upon lot size.

The transition of approximately 16,600 acres of vacant, agricultural and mining land into other uses including residential, commercial and industrial would result in an estimated thirty percent increase of impervious surfaces in the City. The increase in impervious surfaces would result in a significant increase in surface runoff compared to existing land uses.

In addition to exacerbating existing flood conditions, the elevated runoff could contain pollutants such as organic material, pesticides and motor oil. Ultimate discharge of pollutants to Murrieta and Warm Springs creeks must be considered a potentially significant impact as these creeks eventually combine with Temecula Creek to form the Santa Margarita River, which drains into the Pacific Ocean. Pollutants from Murrieta could contaminate the water used by downstream facilities and could harm aquatic life and riparian vegetation along the stream channel.

Mitigation Measure

- 4.3-1 *Implementation of Policies S-2.1b, S-2.1h, S-4.1a, S-4.1b, S-4.1c and S-4.1d would reduce this impact to a less-than-significant level. These policies ensure that adequate drainage is provided with new land uses, that future development takes into account existing capacity and infrastructure problems, and that urban runoff from new development is minimized.*

Impact

- 4.3-2 **Grading, excavation and construction activities occurring with new development under the proposed General Plan have the potential to increase erosion of soil and deposition of particles in drainage ways. This is a *potentially significant impact*.**

During future project construction, runoff from disturbed areas would likely contain silt and debris, resulting in short-term increases in the sediment load of Murrieta and Warm Springs Creeks, their tributaries, and the drainage systems serving the City. This re-deposition of eroded material could create turbidity (endangering aquatic life), reduce wildlife habitat, and reduce the water-carrying capacity of the streams and drainage ways, thereby potentially aggravating flood conditions. The significance of this impact would vary depending upon the level of construction activity, weather conditions, soil conditions, and the increased sedimentation of drainage systems within the area.

Mitigation Measure

- 4.3-2 *Implementation of Policies S-2.1h, S-4.1a, and S-4.1b would reduce this impact to a less-than-significant level. These policies ensure that new development will address erosion and sedimentation control.*

In addition to implementation of these policies, under EPA regulations (40 CFR Part 122), discharge associated with industrial activity, medium and large municipal separate storm sewer system and discharge which is determined to contribute to a violation of a water quality standard must be permitted by the Regional Water Quality Control Board. This permitting requirement known as a National Pollution

4.3 Hydrology and Water Quality

Discharge Elimination System permit (NPDES), applies to construction activity, such as, clearing, grading and excavation activities for areas greater than five acres.

Impact

- 4.3-3 **Groundwater contamination at various locations within the City could affect groundwater quality underlying the proposed project area. This is considered a *potentially significant impact*.**

Though groundwater quality meets existing water quality standards, construction or development by industries planning to use hazardous materials in areas with a high water table may cause potentially significant groundwater contamination problems.

Mitigation Measure

- 4.3-3 *Implementation of Policy S-5.1a would reduce this impact to a less-than-significant level. This policy ensures that businesses which plan to use hazardous materials obtain the necessary permits and comply with relevant EPA and RWQCB standards.*

Impact

- 4.3-4 **Development occurring under the General Plan could reduce groundwater recharge, reducing the available water supply. This is a *potentially significant impact*.**

Groundwater basins are recharged through rainfall and streambed percolation or by artificial recharge. The replacement of pervious surfaces with impervious ones, the collection of water into concrete channels inhibits natural water infiltration. Although artificial recharge can be used to offset decreases in natural recharge caused by development, alleviating the effects of development on the groundwater basin is necessary to ensure an adequate water supply.

Mitigation Measure

- 4.3-4 *Implementation of Policies S-2.1b and S-2.1h would reduce this impact to a less-than-significant level. These policies reduce impacts to the groundwater basin by preserving natural drainage courses and encouraging the use of pervious surfaces in new development.*

Impact

- 4.3-5 **Construction of residential housing and other critical facilities (i.e. schools, hospitals, sewage treatment plants) in the City could expose more people to safety hazards and property damage associated with flooding. This is a *potentially significant impact*.**

Many portions of the City are located in one-hundred year flood zones. These areas are located primarily along Murrieta Creek between Hayes and Jefferson Avenues and Magnolia and Cherry Streets, and Warm Springs Creeks between Murrieta Hot Springs Road and Jefferson. In addition, a portion of the City along

Impact

- 4.3-5 Construction of residential housing and other critical facilities (i.e. schools, hospitals, sewage treatment plants) in the City could expose more people to safety hazards and property damage associated with flooding. *This is a potentially significant impact.*

Many portions of the City are located in one-hundred year flood zones. These areas are located primarily along Murrieta Creek between Hayes and Jefferson Avenues and Magnolia and Cherry Streets, and Warm Springs Creeks between Murrieta Hot Springs Road and Jefferson. In addition, a portion of the City along Warm Springs Creek between Clinton Keith Road and Cherry Street lies within the dam inundation zone of Lake Skinner. Although improvements have been made and are planned for Murrieta Creek and its major tributaries, flooding along these waterways is anticipated until all improvements have been made.

Mitigation Measure

- 4.3-5 Implementation of Policies S-2.1e, S-2.1f and S-1.4 would reduce this impact to a less-than-significant level. These policies ensure that attention is paid to flood zones when construction is undertaken so as to avoid exposing more people to risks associated with flooding. These policies also reduce stormwater runoff which contributes to flooding.

Impact

- 4.3-6 Projects built in areas of shallow groundwater could require dewatering which could introduce contaminated waters into the stormdrain system. *This is a potentially significant impact.*

Areas of shallow groundwater are located in the southern portion of the City between Hayes and Jefferson Avenues and Hawthorne and Cherry Streets. (See Figure 3.1-5 in the City of Murrieta MEA for shallow groundwater areas). Construction in areas of shallow groundwater could require dewatering to avoid foundation instabilities and drainage problems. Discharging of the resulting water would require permitting by the Regional Water Quality Control Board and possible treatment if it were found to be contaminated.

Mitigation Measure

- 4.3-6 A policy should be added to the conservation and Open Space Element that will ensure that projects located in areas of shallow groundwater protect against discharging contaminated water into the stormdrain system by following NPDES permitting procedures.

ENDNOTES

1. Metropolitan Water District of Southern California Planning Division, Eastside Reservoir Project Final Environmental Impact Report, October, 1991.

BIOLOGICAL RESOURCES

SECTION 4.4

Plan Area

Habitats Present

Biological communities found within the City limits and sphere of influence are discussed here primarily in terms of the California Natural Diversity Data Bank (CNDDB) classification system.¹ However, not all habitats found in the City correspond perfectly to the CNDDB community types, and the two predominant community types, urbanized and agricultural lands, are not discussed in the CNDDB system. Habitat types occurring within the General Plan area are: Urbanized Areas, Non-Native Grasslands, Valley Needlegrass Grassland, Agricultural Lands, Chaparral, Coastal Sage Scrub, Riparian Scrub and Forest, and Wetlands. Biological communities found within the City limits and sphere of influence are summarized below in order of approximate acreage covered. Figure 4.4-1 illustrates the approximate location and extent of the different habitat types within the General Plan area.

Urbanized Areas

Although urbanized areas have habitat values that are severely altered from their original condition, they still provide habitat for some native resident and migratory wildlife species. The primary habitat value of urbanized areas is provided by the abundance of landscaped trees and shrubs that are universally planted in developed areas. Several species of birds native to California forage extensively in urban and suburban areas. Wherever native trees, such as oaks, sycamore, and walnut, are used in street median plantings, they offer foraging, roosting, and even nesting habitat for native birds and other wildlife. Urban areas occur throughout the central and southeast portion of the General Plan area and are located approximately in areas near the freeways. The General plan area is significantly divided by two major interstate freeways passing through the plan area in a north to south direction.

Non-Native Grassland

Almost all of the grasslands presently occurring within the City are dominated by non-native species. California buckwheat (*Eriogonum fasciculatum*) is an important native component of these grassland areas. It may occur as scattered individuals, or form a dominant low-shrub layer. Probably, many of these areas once supported sage scrub and/or chaparral and are now undergoing vegetation succession from use as pastures and croplands back to some form of scrubland.

Nearly all of the areas that might once have supported native grassland composed of perennial bunch grass (i.e. *Stipa* spp.), are now dominated by mostly non-native annual species. However, some small areas of native grassland may occur as remergent of historic flora and develop on heavier, more clayey soils, or as small patches of grassland within other habitat types, such as oak woodlands or chaparral.

Grasslands offer excellent habitat for several types of native wildlife, including snakes, rodents (such as Stephens' kangaroo rat, discussed in detail below), song birds, and birds-of-prey. Raptors that use grasslands within the City would likely include a variety of hawks and owls. Non-Native Grasslands occur through the site in non-urbanized areas mostly in the northern and eastern portions of the General Plan area.

4.4 BIOLOGICAL RESOURCES

INTRODUCTION

This section describes the existing conditions and analyzes potential impacts on biological resources that may result from implementation of the Murrieta General Plan.

The following discussion is summarized from the City of Murrieta Master Environmental Assessment (MEA). An expanded discussion of existing conditions related to biological resources is provided in Chapter 3, Section 3.3 of the MEA. The Biologic Resources Section of the MEA is hereby incorporated by reference.

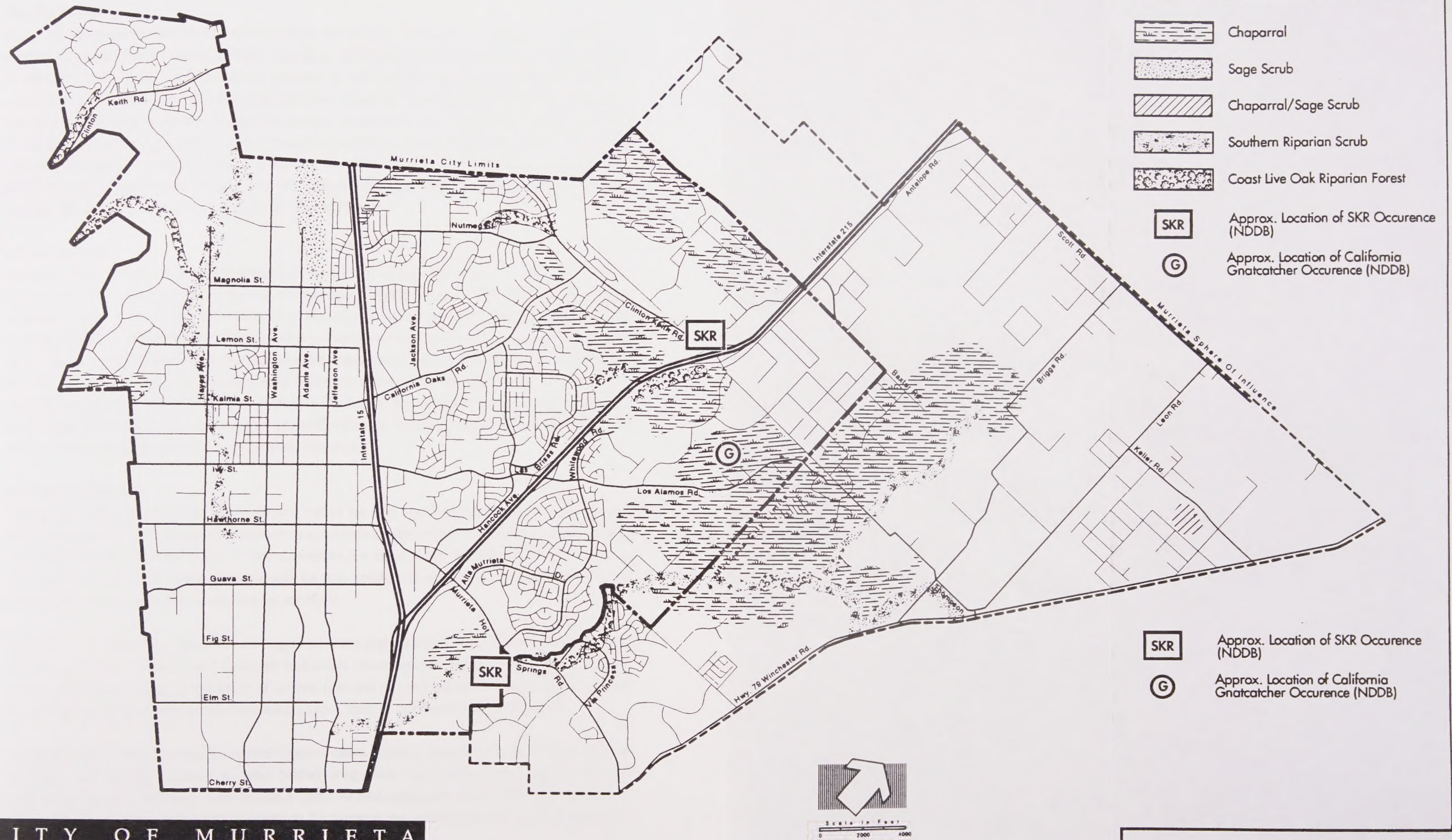
SETTING

Regional

The Murrieta General Plan area encompasses nearly 45 square miles, which includes approximately 17,000 acres of developed land incorporated into the City limits and 11,657 acres of unincorporated county lands. Approximately fifty eight-percent of the Plan area consists of agricultural, existing native vegetated areas, grasslands, and equestrian/grazing lands.

The General Plan area is located in the southern portion of a large valley formed and defined by the Santa Ana Mountains, Santa Rosa Plateau, Santa Margarita and Aqua Tibia ranges, and the San Jacinto Mountains. Included in the terrain of the General Plan area is the east wall of the Santa Rosa Plateau, which is cut by several drainage canyons, a highlands area referred to as the Antelope Hills, and a series of distinct hills called the Hogbacks.

The majority of the General Plan area lies within the inland portion of the Santa Margarita River Basin, with the areas of the northerly Plan Area in the Santa Ana watershed. Murrieta Creek runs through the Murrieta Valley and flows southeasterly through that portion of the City which lies between Interstate 15 and the base of the Santa Rosa Plateau. A network of washes and intermittent stream courses occur throughout the General Plan area.



CITY OF MURRIETA
GENERAL PLAN ENVIRONMENTAL IMPACT REPORT

This map is intended for conceptual use only. Areas shown are not accurate on a parcel by parcel basis and are only intended to illustrate large concentrations of sensitive biotic resources. Other significant habitat areas not shown on the map may exist within the General Plan area. Areas of grassland are not indicated due to their large area of coverage and their comparatively low habitat value within the General Plan area.

Murrieta Biological Communities
FIGURE 4.4-1

Plan Area

Habitats Present

Biological communities found within the City limits and sphere of influence are discussed here primarily in terms of the California Natural Diversity Data Bank (CNDDDB) classification system.¹ However, not all habitats found in the City correspond perfectly to the CNDDDB community types, and the two predominant community types, urbanized and agricultural lands, are not discussed in the CNDDDB system. Habitat types occurring within the General Plan area are: Urbanized Areas, Non-Native Grasslands, Valley Needlegrass Grassland, Agricultural Lands, Chaparral, Coastal Sage Scrub, Riparian Scrub and Forest, and Wetlands. Biological communities found within the City limits and sphere of influence are summarized below in order of approximate acreage covered. Figure 4.4-1 illustrates the approximate location and extent of the different habitat types within the General Plan area.

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Agricultural Lands

A substantial portion of the City has been used, or continues to be used, for agricultural purposes such as grazing or dry-farming of feed grains and hay. Despite the disturbance of vegetation and land that is inherent in agricultural activities, these areas continue to provide habitat values similar to grasslands for wildlife.

Wildlife species such as small birds and rodents can find abundant food and cover in the on-site Agricultural habitat; this in turn provides a prey base for wide ranging and migratory predators such as birds-of-prey, coyotes, and foxes.

Field edges and irrigation channels associated with agricultural lands within the General Plan area are important habitat features that provide a source of drinking water, cover, nesting substrate and also serve as movement corridors. The potential occurrence of shallow water shorelines along the irrigation channels may provide foraging habitat for wading birds.

Agricultural lands tend to have healthy rodent populations, that offer good foraging opportunities for mammalian and avian predators. Agricultural lands form a mosaic pattern of different agricultural land use practices such as equestrian areas and croplands that support different types of crops, these areas occupy the majority of the northwestern portion of the General Plan area.

Chaparral

The chaparral habitat on site is, overall, best characterized as southern mixed chaparral dominated by chamise (*Adenstoma fasciculatum*) scrub oak (*Quercus dumosa*), California buckwheat (*Eriogonum fasciculatum*), and *ceanothus* spp. Many other species are present as a variable, usually minor, component of the vegetation. Some areas correspond better to other chaparral types such as chamise chaparral or *Ceanothus* chaparrals.

Within the Murrieta area, the largest contiguous expanses of chaparral occurs primarily on the "Hogsbacks" next to Warm Springs Creek. Small areas also occur elsewhere, and the southwestern City boundary includes small portions of the extensive chaparral hillsides that extend up to The Nature Conservancy preserve on the Santa Rosa Plateau.

Chaparral habitat provides food and shelter for a very wide range of resident and migratory wildlife species in all groups. However, the diversity of species present declines sharply when expanses of chaparral are fragmented or isolated within developed areas with no connection to other habitat areas through riparian or other corridors.²

4.4 Biological Resources

Coastal Sage Scrub

Coastal Sage Scrub habitat is characterized by a mixture of soft-leaved (malacophyllous) shrubs which tend to have aromatic foliage. These shrubs are typically shorter than chaparral shrubs. Many dominant species lose their larger winter leaves, retaining just the smaller leaves through summer. Principal species vary from area to area with slope exposure and elevation, thereby giving a great deal of local variation to the habitat. The principal dominant species include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and several species of true sage (*Salvia* spp.). The number of perennial and annual herbs varies, but they are generally low in cover and abundance. The animal species associated with coastal sage scrub include the San Diego cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), California gnatcatcher (*Polioptila californica*), San Bernadino kangaroo rat (*Dipodomys merriami parvus*), and Stephens' kangaroo rat (*Dipodomys stephensi*).

Two types of coastal sage scrub occur in the region, Diegan and Riversidian. Because the species composition and overall habitat structure of these two community types is so similar, and because some species of concern typical of the sage scrub habitat may be found in either type, it is probably best to regard them as variants of the same community type. One area of very typical Coastal Sage Scrub that was examined in detail, near Chaney Hill, corresponds more closely to the Diegan type than to Riversidian. Additional patches of Coastal Sage Scrub occur within chaparral and other habitat types.

Riparian Scrub and Forest

Although a few riparian forest tree species are scattered along major creeks, only small areas of actual riparian forest community occur within the general plan area. Some of these riparian areas are very rich and correspond most closely to the Southern Coast Live Oak Riparian Forest, or are transitional to Southern Cottonwood-Willow Riparian Forest. Nearly all of the oak woodlands within the City occur as riparian forest. The predominant species in oak woodlands within the City is coast live oak, but Engelmann oaks are frequently scattered among them. Southern Riparian Scrub also occurs, probably more extensively than riparian forest. Mulefat Scrub occurs extensively along Murrieta Creek; Southern Willow Scrub is more common elsewhere, such as along Warm Springs Creek. However, these two types of riparian scrub often occur as a mosaic.

Riparian communities have extremely high wildlife values for many reasons. They are usually the only source of water, and they provide nesting and denning habitat for many species, including some candidate and endangered species such as the least Bell's vireo. Riparian habitats generally constitute the only corridors of natural habitat through developed areas, thus permitting daily or seasonal wildlife movements that are essential in maintaining ecological stability and species diversity in areas that are not developed. These ecological functions are often compatible with use of riparian corridors for passive recreation (paths), if measures are taken to minimize habitat impacts that could result from walking or use of bicycles off of established paths.

Within the City, extremely high quality riparian habitat is present along Warm Springs Creek and along small reaches of unnamed intermittent creeks near I-215 and the northern City boundary. Although the

riparian habitat along much of the length of Murrieta Creek within the City has been degraded by erosion and the construction of levees, some areas of riparian oak forest and mulefat scrub persist, and the creek as a whole has great restoration potential. The importance of the potential for restoration of this corridor is heightened by the proximity of the Santa Rosa Plateau, and the relative ecological integrity of the intervening chaparral hillsides and canyons (Cole, Miller, and Sandia Canyons).

Currently, the Riverside County Flood Control and Water Conservation District is proposing to improve 11 miles of the Murrieta Creek to provide 100-year flood protection to existing development. The project being recommended would avoid the most valued aquatic areas upstream of the Temecula Creek/Murrieta Creek confluence, and provide on-site mitigation for all impacted wetlands. The proposed project would, through mitigation and preservation, provide a continuous riparian habitat corridor (with the exception of a short reach downstream of Winchester Road) between Rancho California Road in Temecula to the end of the project area upstream of Clinton Keith Road just north of the Murrieta City limits.

Wetlands

In addition to riparian areas, much of which constitute waters of the U.S., isolated seasonal wetlands occur in topographic depressions within grasslands wherever soils are sufficiently impermeable to pond water during the rainy season. This impermeability can result either from high clay content in the topsoil or subsoil, or from proximity of bedrock to the surface. Where these conditions occur, the seasonal wetlands that form may be dominated by introduced or facultative species, or they may be vernal pools, which support a distinctive assemblage of native species, sometimes including special-status plants or invertebrates. In addition, several springs occur within the General Plan area.

Special-Status Species

For the purposes of this section, special-status species include those that are listed as rare, threatened, or endangered by either the California Department of Fish and Game (CDFG) or the U.S. Fish and Wildlife Service (USFWS); most species that are candidates for either state or federal listing; species designated as "fully protected" or "species of special concern" by CDFG; and some other species that are tracked by the California Natural Diversity Data Base but do not fall into any of the categories cited above. The California Natural Diversity Data Base (CNDDDB), EIP Associates' proprietary rare plant data base, the Murrieta MEA and other relevant background information were reviewed to determine the occurrence or potential occurrence of special-status plant or wildlife species, and natural communities of special concern on or within an approximate 10-mile radius of the General Plan area. A search range of an approximate 10-mile radius is typically used to identify potential special-status species issues. A 10-mile radius encompasses a sufficient distance to accommodate for regional habitat diversity and to overcome the limitations of the CNDDDB. The CNDDDB is based on actual recorded occurrences and does not constitute an exhaustive inventory of every resource. The review identified recorded occurrences of 12 plant species, 12 wildlife species within an approximately 10-mile radius of the project site (See Table 4 4-1).³

4.4 Biological Resources

Eight of the recorded occurrences of the species listed in Table 4.4-1 were located on the project site. The chaparral, coastal sage scrub, non-native grassland, and riparian habitats within the General Plan area support potential habitat for three of the 12 plants, and 11 of the 12 wildlife species listed in Table 4.4-1.

The Santa Rosa Plateau Ecological Reserve is located approximately one half mile west of the General Plan area. The Reserve is a cooperatively managed natural area of nearly 7,000 acres that is recognized internationally for its biological diversity, its unusual concentration of rare and endangered species of plants and wildlife, and for the degree of cooperation between federal, state, and local governments and the private sector in providing for the protection of its resources. Given the close proximity of the reserve to the General Plan area with connecting canyons, drainages and habitats, a number of species found on the reserve also have potential to exist within the General Plan area. Table 4.4-2 lists species known to occur on the reserve and, therefore, may exist within the Murrieta General Plan area.

The discussion of special-status species in this section is limited to those species for which suitable habitat is likely to occur within the City limits or sphere of influence, and for which there are recorded occurrences within close proximity to the City. Many species that are regionally known only from localities or habitats (e.g., serpentine soils) that are not pertinent to the Murrieta planning area are not discussed here.

Wildlife

Los Angeles Pocket Mouse

The Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) is designated as a species of special concern. It is associated with arid and seasonally arid climate zones. It subsists chiefly on seeds, insects, and some grasses. Los Angeles pocket mice may not dig underground tunnels, but hide under weeds and dead leaves instead. The geographic range of the Los Angeles pocket mouse is restricted to lower elevation grasslands and coastal sage scrub associations in the Los Angeles basin from approximately Burbank and San Fernando on the northwest to San Bernardino on the northeast, and Cabazon, Hemet, and Aguanga on the east and southeast.

Stephens' Kangaroo Rat

Stephens' kangaroo rat (*Dipodomys stephensi*) is a seed-eating rodent found in western Riverside County, extreme southwestern San Bernardino County, and part of San Diego County. It is a California and federal endangered species. Its preferred habitat is open grassland although it occurs also in open coastal sage scrub and sandy washes. O'Farrell (no date) found that the Stephens' kangaroo rat may be found in habitats with up to 30 percent aerial shrub cover, but most individuals are found in habitat lacking shrub cover. The Pacific kangaroo rat (*Dipodomys agilis*) closely resembles the Stephens' kangaroo rat and is generally found in habitat with greater cover than Stephens' kangaroo rat, although these two species can co-occur in mosaic grassland/scrub areas and edges between these habitats. For this reason, it can be difficult to ascribe kangaroo rat sign (burrows, dusting areas, and scat) to one or the other species.

TABLE 4.4-1
SPECIAL-STATUS SPECIES REPORTED FROM THE
MURRIETA GENERAL PLAN AREA REGION

Species/Common Name	Status ^{1/}			Habitat Preference	Habitat Present on Site	Seasonal Use/ Bloom Time	Occurrence on Site (Source)
	Federal	California	CNPS				
PLANTS							
<i>Allium fimbriatum</i> var. <i>munzii</i> Munz's onion	C1	SE	1B	Seasonal wetlands	Yes	March - June	Unknown
<i>Ambrosia pumila</i> San Diego ambrosia	C2	None	1B	Seasonal wetlands	Yes	March - June	Unknown
<i>Brodiaea filifolia</i> thread-leaved brodiaea	C1	SE	1B	Vernal pools, clay soils	Yes	March - June	Unknown
<i>Caulanthus simulans</i> Payson's jewelflower	C2	None	4	Chaparral, coastal sage scrub	Yes	April - June	Maybe
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	C2	None	None	Chaparral	Yes	April - June	Maybe
<i>Dodecahema leptoceras</i> slender-horned spineflower	FE	SE	1B	Coastal sage scrub	Yes	April - June	Maybe
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego button celery	C1	SE	1B	Vernal pools, clay soils	Yes	March - June	Unknown
<i>Harpagonella palmeri</i> Palmer's grappling hook	FE	None	1B	Seasonal wetlands	Yes	March - June	Unknown
<i>Limnanthes gracilis</i> ssp. <i>parishii</i> Parish's meadowfoam	C2	SE	1B	Vernal pools, clay soils	Yes	March - June	Unknown
<i>Navarretia fossalis</i> prostrate navarretia	C2	None	1B	Vernal pools, clay soils	Yes	March - June	Unknown
<i>Orcuttia Californica</i> California Orcutt grass	C1	SE	1B	Vernal pools, clay soils	Yes	March - June	Unknown
<i>Polygala cornuta</i> var. <i>fishiae</i> Fish's mailcort	None	None	4	Riparian	Yes	March - June	Maybe

TABLE 4.4-1
SPECIAL-STATUS SPECIES REPORTED FROM THE
MURRIETA GENERAL PLAN AREA REGION

Species/Common Name	Status ^{1/}			Habitat Preference	Habitat Present on Site	Seasonal Use/ Bloom Time	Occurrence on Site (Source)
	Federal	California	CNPS				
REPTILES AND AMPHIBIANS							
<i>Clemmys marmorata pallida</i> southwestern pond turtle	C2	CSC	--	Riparian, perennial water	Unlikely	Year-round resident	Unknown
<i>Cnemidophorus hyperythrus</i> orange-throated whiptail	C2	CSC	--	Coastal sage scrub, chaparral	Yes	Year-round resident	Maybe
<i>Phrynosoma coronatum blainvillii</i> San Diego horned lizard	C2	CSC	--	Coastal sage scrub, chaparral	Yes	Year-round resident	Yes (NDDDB)
BIRDS							
<i>Accipiter cooperii</i> Cooper's hawk	None	CSC	---	Oak woodland, riparian, coastal sage scrub	Yes	Breeding resident	Yes
<i>Aquila chrysaetos</i> golden eagle	None	CSC	---	Open grasslands, rolling foothills	Yes	May forage from distant nests	Yes
<i>Circus cyaneus</i> Northern harrier	None	CSC	---	Open grasslands, rolling foothills	Yes	Foraging/ breeding	Yes
<i>Polioptila californica</i> California gnatcatcher	FT	CSC	---	Coastal sage scrub	Yes	Year-round resident	Yes (NDDDB)
<i>Vireo bellii pusillus</i> Least bell's vireo	FE	SE	---	Riparian	Yes	Year-round resident	No

TABLE 4.4-1
SPECIAL-STATUS SPECIES REPORTED FROM THE
MURRIETA GENERAL PLAN AREA REGION

Species/Common Name	Status ^{1/}			Habitat Preference	Habitat Present on Site	Seasonal Use/ Bloom Time	Occurrence on Site (Source)
	Federal	California	CNPS				
MAMMALS							
<i>Dipodomys stephensi</i> Stephen's kangaroo rat	FE	ST	---	Grasslands, coastal sage scrub, sagebrush	Yes	Year-round resident	Yes (NDDDB)
<i>Felis concolor</i> Mountain lion	None	CSC	---	Chaparral	Yes	Year-round resident	Yes
<i>Perognathus longimembris brevinasus</i> Los Angeles pocket mouse	C2	CSC	---	Grasslands, coastal sage scrub	Yes	Year-round resident	Maybe
<i>Taxidea taxus</i> Badger	None	CSC	---	Chaparral	Yes	Year-round resident	Yes

- ^{1/} Status = Status of species relative to the Federal and State Endangered Species Acts and California Fish and Game Code.
- Fed = Federal status.
- FE = Federally listed as endangered.
- T = Federally listed as threatened.
- C1 = Category 1 comprises taxa for which the USFWS currently has substantial information on hand to support the biological appropriateness of proposing to list as endangered or threatened. Proposed rules have not yet been issued because they have been precluded at present by other listing activity.
- C2 = Category 2 comprises taxa for which information now in possession of the USFWS indicates that proposing to list as endangered or threatened is possibly appropriate, but for which conclusive data on biological vulnerability and threat are not currently available to support proposed rules. Further biological research and field study may be needed to ascertain the status of taxa in this category, and it is likely that many will be found not to warrant listing.
- CA = California status.
- SE = State listed as endangered.
- ST = State listed as threatened.
- CSC = California Department of Fish and Game "Species of Special Concern."
- = No California or Federal status.
- CNPS = California Native Plant Society listing (does not apply to wildlife species).
- 1B = Plants rare, threatened or endangered in California and elsewhere and are rare throughout their range. All of the plants constituting List 1B meet the definitions of Section 1901, Chapter 10 (Native Plant Protection) of the California Department of Fish and Game Code and are eligible for state listing.
- 4 = Plants of limited distribution - a watch list. Plants in this category are of limited distribution in California and their vulnerability or susceptibility to threat appears low at this time. However, they are uncommon enough that their status should be monitored regularly.

TABLE 4.4-2
LIST OF SENSITIVE SPECIES FOUND IN THE CHAPARRAL AND COASTAL SAGE
SCRUB COMMUNITIES ON THE SANTA ROSA PLATEAU ECOLOGICAL RESERVE

Species/Common Name	Status ^{1/}			Habitat Preference	Habitat Present on Site	Seasonal Use	Occurrence on Site (Source)
	Federal	State	CNPS				
PLANTS							
<i>Arctosaphylos peninsularis</i> peninsular manzanita	None	None	2	Chaparral	Yes	Year-round	Yes (SRPER)
<i>Calamintha chandleri</i> San Miguel savory	None	CSC	None	Coastal scrub, chaparral	Yes	Seasonally	Yes (SRPER)
<i>Mimulus diffusus</i> Palomar monkeyflower	None	None	4	Coastal scrub, chaparral	Yes	Seasonally	Yes (SRPER)
<i>Polygala cornuta</i> var. <i>fishae</i> Fish's milkwort	None	None	4	Coastal scrub, chaparral	Yes	Seasonally	Yes (SRPER)
<i>Quercus engelmanni</i> Engelmann oak	None	CSC	4	Coastal scrub, chaparral	Yes	Year-round	Yes (SRPER)
REPTILES AND AMPHIBIANS							
<i>Cnemidophorus hyperythrus</i> orange-throated whiptail	None	CSC	---	Coastal sage scrub, mixed chaparral	Yes	Year-round resident	Yes (SRPER)
<i>Cnemidophorus hyperythrus multiscutatus</i> coastal western whiptail	C2	None	---	Coastal scrub, chaparral	Yes	Year-round resident	Yes (SRPER)
<i>Crotalis ruber ruber</i> northern red diamond rattlesnake	C2	CSC	---	Desert chaparral	Yes	Year-round resident	Yes (SRPER)
<i>Diadophis punctatus modestus</i> San Bernardino ring-necked snake	C2	None	---	Chaparral, grasslands	Yes	Year-round resident	Yes (SRPER)
<i>Lichanura trivirgata roseofusca</i> coastal rosey boa	C2	CSC	---	Desert chaparral	Yes	Year-round resident	Yes (SRPER)
<i>Phrynosoma coronatum blainvillii</i> San Diego horned lizard	C2	CSC	---	Sandy soil, desert shrub	Yes	Year-round resident	Yes (NDDb)

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SCRUB COMMUNITIES ON THE SANTA ROSA PLATEAU ECOLOGICAL RESERVE

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	Federal	State	CNPS				
BIRDS							
<i>Aimophila ruficeps</i> Southern California rufus-crowned sparrow	C2	None	---	Coastal sage scrub	Yes	Year-round resident	Yes (SRPER)
<i>Amphispiza belli</i> Bell's sage sparrow	C2	None	---	Chaparral, coastal sage scrub	Yes	Year-round resident	Yes (SRPER)
<i>Aquila chrysaetos</i> golden eagle	None	CSC	---	Chaparral, grasslands	Yes	Year-round resident	Yes (SRPER)
<i>Asio otus</i> long-eared owl	C2	CSC	---	Oak thickets, woodland	Yes	Year-round resident	Yes (SRPER)
<i>Camplorhynchus brunneicapillus sandiegoense</i> coastal cactus wren	C2	CSC	---	Desert wash thorny, shrubs, desert succulent shrub	Yes	Year-round resident	Yes (SRPER)
<i>Lanius ludovicianus</i> loggerhead shrike	C2	None	---	Chaparral, coastal sage scrub, desert riparian	Yes	Year-round resident	Yes (SRPER)
<i>Oreotyx pictus</i> mountain quail	C2	None	---	Deciduous forest, chaparral, woodland	Yes	Year-round resident	Yes (SRPER)
<i>Poliophtila californica</i> California gnatcatcher	PE	CSC	---	Coastal sage scrub, desert wash	Yes	Year-round resident	Yes (SRPER)
MAMMALS							
<i>Chaetodipus californicus femoralis</i> Dulzura California pocket mouse	C2	None	---	Coastal sage scrub, chaparral	Yes	Year-round resident	Yes (SRPER)
<i>Chaetodipus fallax fallax</i> northwestern San Diego pocket mouse	C2	None	---	Coastal sage scrub, chaparral	Yes	Year-round resident	Yes (SRPER)

TABLE 4.4-2
LIST OF SENSITIVE SPECIES FOUND IN THE CHAPARRAL AND COASTAL SAGE
SCRUB COMMUNITIES ON THE SANTA ROSA PLATEAU ECOLOGICAL RESERVE

Species/Common Name	Status ^{1/}			Habitat Preference	Habitat Present on Site	Seasonal Use	Occurrence on Site (Source)
	Federal	State	CNPS				
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	C2	None	---	Coastal sage scrub, chaparral	Yes	Year-round resident	Yes (SRPER)
<i>Neotoma lepida</i> San Diego desert woodrat	C2	None	---	Coastal sage scrub, chaparral	Yes	Year-round resident	Yes (SRPER)

^{1/}	Status	=	Status of species relative to the Federal and State Endangered Species Acts and California Fish and Game Code.				
	Fed	=	Federal status.				
	T	=	Federally listed as threatened.				
	C2	=	Category 2 comprises taxa for which information now in possession of the USFWS indicates that proposing to list as endangered or threatened is possibly appropriate, but for which conclusive data on biological vulnerability and threat are not currently available to support proposed rules. Further biological research and field study may be needed to ascertain the status of taxa in this category, and it is likely that many will be found not to warrant listing.				
	CA	=	California status.				
	CSC	=	California Department of Fish and Game "Species of Special Concern."				
	---	=	No California or Federal status.				
	CNPS	=	California Native Plant Society listing (does not apply to wildlife species).				
	2	=	Plants rare, threatened, or endangered in California, but more common elsewhere.				
	4	=	Plants of limited distribution - a watch list. Plants in this category are of limited distribution in California and their vulnerability or susceptibility to threat appears low at this time. However, they are uncommon enough that their status should be monitored regularly.				
	SRPER	=	Santa Rosa Plateau Ecological Reserve.				

The USFWS listed the Stephens' kangaroo rat as endangered in 1988. The Endangered Species Act (ESA) prohibits any action that could take, harm, harass, or further endanger the species, including the loss of its habitat. The incidental take provision of the ESA allows the loss of individuals of an endangered species and its habitat, provided that a Habitat Conservation Plan (HCP) is prepared. The HCP identifies preserve areas where land could be purchased to mitigate for the loss of habitat elsewhere within the species range and establishes a user fee to finance the HCP program. The Murrieta General Plan is within the Stephens' kangaroo rat HCP fee area. For the Stephens' kangaroo rat, the current fee is \$1000.00 for large lot residences and \$1950.00 per acre for other developments. These development fees are used to purchase land within designated HCP. None of the Stephens' kangaroo rat study areas and Known Occupied Habitat are found within the Murrieta General Plan area, although the Santa Rosa and Lake Skinner study areas are located immediately west and northeast, respectively, of the General Plan area.

Mountain Lion

The mountain lion (*Felis concolor*) is a protected species in California. This large carnivore inhabits chaparral and woodland habitats, using densely vegetated riparian corridors for cover, resting, and seasonal or daily movements. Tracks have been reported from Murrieta Creek in the northwest corner of the City, and the species is likely to occasionally use other areas within the City, especially where habitat connections persist to large expanses of natural shrublands or woodlands.⁴

American Badger

The American badger (*Taxidea taxus*) is a California species of special concern. It is an uncommon, permanent resident found throughout most of the state, except in the northern coast area. The badger is most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Badgers are carnivorous and eat rats, mice, chipmunks, and especially ground squirrels and pocket gophers. Occasionally badgers have been known to feed on reptiles, insects, birds, eggs, and carrion. Diets shift seasonally and yearly in response to availability of prey. Suitable habitat exists on the project site as Chaparral, and badgers are somewhat tolerant of human activities. However, predator control using indiscriminate trapping and persistent poisons have caused extensive losses making the badger unlikely to occur in the area.

California Gnatcatcher

The California gnatcatcher (*Poliophtilia californica*) is a California species of special concern. The California gnatcatcher is a year-round resident that is most numerous in low, dense coastal sage scrub habitat in arid washes, on mesas, and on slopes of coastal hills. Although its primary habitat is in Diegan coastal sage scrub, it is also found in the Riversidian form of this community, and even in chaparral, presumably anywhere that the shrub cover is not excessively dense. An occurrence of the gnatcatcher is recorded near Warm Springs Creek, east of the Hogbacks. A small area of suitable coastal sage scrub

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habitat occurs near Chaney Hill. However, because this area is isolated from other suitable habitat by extensive urban areas, it is questionable whether the gnatcatcher is still present there.

Cooper's Hawk

The Cooper's hawk (*Accipiter cooperii*) is a California species of special concern. Cooper's hawks nest and forage in riparian and oak woodland areas, usually occurring near open water. The Cooper's hawk feeds primarily on small birds, occasionally taking small mammals. The project site does have sufficient foraging habitat available for Cooper's hawks, and potential nesting areas occur within several of the riparian corridors. The species has been observed within the City boundaries.

Golden Eagle

The Golden Eagle (*Aquila chrysaetos*) is a fully protected species in California. The golden eagle is a resident and migrant throughout California. Its preferred habitat is rolling hills and mountain terrain, wide arid plateaus, deeply cut streams and canyons, and open mountain slopes. Preferred nesting areas are on cliffs and rock outcrops, but large trees are sometimes used. Golden eagles feed mainly on mammals, birds, reptiles, and carrion. Golden eagles are occasionally observed soaring over the City and can be expected to forage over much of the undeveloped lands. Suitable nesting habitat is probably scarce or non-existent within the City, but may occur in the vicinity of the Hogsbacks, or conceivably in large trees in the eastern portion of the planning area (within the sphere of influence).

Northern Harrier

The northern harrier (*Circus cyaneus*) is a California species of special concern and a fully protected raptor. The northern harrier occurs from lowland annual grasslands up to alpine meadows. Harriers frequent meadows, grasslands, open ranges, desert sinks, fresh and salt water emergent wetlands but are seldom found in wooded areas. The northern harrier is a widespread winter resident and migrant in suitable habitat. The primary prey species for the northern harrier are small mammals, birds, frogs and small reptiles. The northern harrier is a ground nesting raptor that nests in wetland and upland areas. This species has been seen within the City boundaries and it is to be expected that northern harriers would most likely winter on the project site.

Least Bell's Vireo

The least Bell's vireo is found in dense, young willow-cottonwood woodlands. It is known from limited populations along dense riparian habitats in southern California. This subspecies has suffered a decline in numbers due to the state wide reduction in riparian habitat, its preferred habitat. Nest parasitism by brown-headed cowbirds (*Molothrus alter*) has further reduced the population of the least Bell's vireo. In 1988, the population was estimated at approximately 400 breeding pairs in the United States.⁵

Orange-throated Whiptail

Orange-throated whiptail (*Cnemidophorus hyperythrus*) is a Category 2 Candidate for federal listing. The orange-throated whiptail is an uncommon to fairly common lizard over most of its range. This species inhabits low-elevation coastal shrub, chamise-redshank chaparral, mixed chaparral, and valley-foothill

hardwood habitats. The orange-throated whiptail forages actively on the surface and scratches through surface debris for arthropods, preferring termites when available.

San Diego Horned Lizard

The San Diego horned lizard (*Phrynosoma coronatum blainvillii*) is a California species of special concern. Horned lizards are found in a wide variety of habitats, including chaparral and sage scrub and riparian edges. They are typically absent from open or barren fields or grasslands. Other characteristics of suitable habitat for this species include the presence of rodent burrows for refuge from predators and the absence of disturbed compressed soils. Horned lizards feed on ants and other insects.

Southwestern Pond Turtle

The southwestern pond turtle (*Clemmys marmorata pallida*) is a Category 1 Candidate for federal listing and a California species of special concern. Southwestern pond turtles are uncommon in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest. The species is normally associated with permanent ponds, lakes, streams, irrigation ditches, or permanent pools along intermittent streams. This species is considered omnivorous. Aquatic plant material, insects, fish, frogs and even carrion have been reported as elements of its diet. Little suitable habitat for the southwestern pond turtle occurs within the City, but the species has been recorded from Murrieta Creek (undisclosed site; possibly within City boundaries) and could occur in Warm Springs Creek or in or near the springs near its headwaters.

Plants

For the purposes of this document, it is preferable to discuss special-status plant species that potentially occur in the City in groups according to habitat.

Plants of Vernal Pools and Clay Soils

Occurrences of special-status vernal pool plants have been recorded from the Santa Rosa Plateau, from Skunk Hollow and other areas just east of the City, and from Murrieta Hot Springs (occurrence now extirpated). It is possible that as-yet unmapped vernal pools, or soils that could support some of these species, occur in the eastern portion of the planning area. Species of concern that occur in this habitat include several state-listed endangered species (San Diego button celery (*Eryngium aristulatum* var. *parishii*), Parish's meadowfoam (*Limnanthes gracilis* ssp. *parishii*) California Orcutt grass (*Orcuttia californica*), and three-leaved brodiaea (*Brodiaea filifolia*). Prostrate navarretia (*Navarretia fossalis*) is a federal Category 2 Candidate species occurring in vernal pools in the region.

Additional special-status plant species occur in non-wetland, or marginal wetland habitats on clay soils in the Murrieta region. These include Munz's onion (*Allium fimbriatum* var. *munzii*; state-listed threatened), San Diego ambrosia (*Ambrosia pumila*; federal Category 2 Candidate), Palmer's grappling-hook (*Harpagonella palmeri*; CNPS list 2).

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Plants of Chaparral, Scrub, and Woodland Habitats

Payson's jewelflower (*Caulanthus simulans*) is a federal Category 2 Candidate species of rocky slopes that are generally vegetated by chaparral or sage scrub. It is most commonly observed under atypical climatic conditions, such as following fires or unusual precipitation patterns.

Parry's spineflower (*Chorizanthe parryi* var. *parryi*) is also a federal Category 2 Candidate species found in open areas within a variety of scrub and chaparral community types. Although its center of distribution lies somewhat to the east of Murrieta, it nevertheless could occur in any areas of those habitat types within the City.

Fish's milkwort (*Polygala cornuta* var. *fishiae*) is found in chaparral canyons, oak woodlands, and riparian habitats; as is the case with most members of its family, it requires moist or very shady habitat. It has been found in Cole Canyon, just west of the City.

Plants of Riparian or Other Wetland Habitats

Slender-horned spineflower (*Dodecahema leptoceras*) is a state- and federally listed endangered species found within the alluvial washes or sandy alluvial terraces within Riversidian Fan Sage Scrub. Alluvial wash habitat does occur along Murrieta Creek north of the levees, so it is possible, albeit unlikely, that this species could occur there.

Regulations Relevant to Biological Resources

Federal Wetland Regulations

Section 404 of the Clean Water Act (1972) prohibits the filling of jurisdictional waters of the U.S. without a permit issued by the U.S. Army Corps of Engineers (Corps) under a Memorandum of Understanding with the Environmental Protection Agency. Most waters of the U.S. are defined by list (lakes, ponds, rivers, etc.) and the limits of jurisdiction determined at the ordinary high water level. The limits of jurisdiction in wetlands (which are one of the types of waters of the U.S.) are presently determined by the Corps 1987 methodology.⁶

Fills may be permitted by the issuance of an individual permit. Alternatively, fills of less than 10 acres above the headwaters of a water of the U.S. or in an adjacent or isolated wetland, and in certain other circumstances, may be authorized under the auspices of one of approximately 30 nationwide permits, following notification of and approval by the Corps.⁷

A feasible plan for the mitigation of wetland fills and other impacts, and consultation with state and other federal agencies are required for impacts to waters of the U.S. Fills of less than one acre are permitted without notification. The EPA Section 404(b)(1) guidelines for the evaluation of mitigation and compensation proposals include the stipulation that avoidance of fills is the most preferred mitigation, followed by on-site compensation, then off-site compensation. Compensation ratios required for

unavoidable fills are typically higher than 1:1, especially if the wetland habitat to be affected is a particularly scarce or unique type, such as riparian habitat or vernal pools.

Streambed Alteration Agreements

Sections 1601 through 1603 of the California Fish and Game Code prohibit alterations of any streams or other bodies of water, including intermittent and seasonal channels and many artificial channels, without a permit from CDFG. The limit of CDFG jurisdiction is, subject to the judgment of the CDFG, up to the 100-year flood level. Thus, CDFG jurisdiction extends beyond that of the Corps and is applied to alterations not requiring fills. The Fish and Game Code of California, Section 1603, states that "It is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake designated by the department, or use any material from the streambeds without notifying the department of such activity....". Mitigation in the form of revegetation and restoration to original contours is typically required by CDFG for alterations resulting in impacts upon wetland or aquatic habitats as a condition of the Streambed Alteration Permit.

Endangered Species Acts

The State of California and the U.S. Government have enacted laws protecting endangered species and their habitats. Legal protection under these acts is extended to species listed as threatened or endangered, but not to candidate species. The federal act stipulates rigorous requirements for consultation and/or the preparation of a Habitat Conservation Plan whenever a proposed project or action may affect listed species or their habitat. The California act mandates that state lead agencies may not take actions resulting in jeopardy to listed species or their habitat.

General Plan Policies

There are thirteen policies within the Conservation and Open Space Element of the 1993 Murrieta Draft General Plan addressing biological resources. The goals and policies of the Murrieta Draft General Plan as presented below, are incorporated as a part of the Murrieta General Plan project.

4.4 Biological Resources

Goal COS-2 Biotic Resources

Conserve biotic resources in both natural and urban environments

Objective COS-2.1 *Habitat Protection* Biotic Resources in the Plan Area, including vegetation, wildlife, and all special-status species, shall be conserved through the protection of habitats and the mitigation of impacts due to development.

Policy COS-2.1a: Coordinate with regional, state, and federal agencies to achieve common goals for habitat and species conservation.

Policy COS-2.1b: Encourage donation or exchange of lands with sensitive biotic resources to non-profit environmental organizations or responsible agencies.

Policy COS-2.1c: Preserve opportunities for establishing waterways as wildlife corridors and encouraging flood control techniques which allow the establishment of habitats. Use other open space corridors or greenbelts to link natural areas where possible. Reestablishment important wildlife corridors which may have been damaged.

Policy COS-2.1d: Ensure that all opportunities for mitigation of environmental impacts are explored. Encourage the establishment of mitigation banks to protect or restore habitat within the plan area.

Policy COS-2.1e: Retention of existing biologically functioning wetlands shall be preferred over replacement with manufactured wetlands.

Policy COS-2.1f: In the review of the development projects, assess the total habitat value of a site, rather than simply the presence or absence of special-status species.

Policy COS-2.1g: Continue to implement regional habitat conservation programs for endangered species.

Policy COS-2.1h: Pursue the creation of a habitat corridor from Antelope Hills to Murrieta Creek.

Policy COS-2.1i: Develop and create an endangered species habitat data bank.

Objective COS-2.2 *Supportive Land Use Strategies* Land use and landscape strategies and standards which protect wildlife habitats and important vegetation.

- Policy COS-2.2a:** Encourage the use of cluster development, large lot districts and open space and drainage easements to protect stream beds, vegetation, soils, and wildlife.
- Policy COS-2.2b:** Establish adequate buffer areas between sensitive habitats and development. Provide adequate setbacks to protect riparian habitats from roads and structures. Periodically review minimum riparian area setbacks to determine if setback distances are effective, and revise if necessary.
- Policy COS-2.2c:** Require the use of sound conservation practices in the management of grading, drainage, protection of soils, protection of wildlife habitat areas, replacement of shrubs and ground covers, and the protection and replacement of indigenous trees.
- Policy COS-2.2d:** Provide natural areas in urban settings to increase species diversity and provide wildlife viewing opportunities for residents of the City.

IMPACTS AND MITIGATION MEASURES

Methodology

The evaluation of potential impacts resulting from implementation of the Murrieta General Plan is based on the importance of affected habitats or features to species observed, or to other species that would be expected to be present in the General Plan area. Information used to assess potential impacts included the Murrieta General Plan, Murrieta MEA, aerial photography, correspondence and informal consultation with regulatory agencies, special-status species databases, and numerous reports and maps describing and illustrating the existing conditions of the biological resources within and adjacent to the General Plan General Plan area.

Standards of Significance

For the purpose of this EIR, an impact was considered significant if the proposed project would:

- result in the substantial, or potentially substantial reduction in abundance or other adverse change in the flora, fauna habitats (including wetlands) or any of the physical conditions within the area;
- result in substantial adverse effects on rare or endangered plants or animals or the habitat of such species;
- Substantially diminished habitat that has significant human use for scientific or educational purposes;
- cause or allow substantial interference with the movement of resident or migratory fish or wildlife species; or
- result in substantial adverse impacts on Federal or State candidate species and species of special concern.

4.4 Biological Resources

Evaluation of the significance of project-specific impacts in relation to this criteria is provided in the following discussion.

Impact

4.4-1 Buildout of the proposed General Plan would result in the fragmentation of habitat for native plant and wildlife species. *This is a significant impact.*

As established in the setting section, the biological resources that occur within the Murrieta General Plan study area represent a rich and diverse ecosystem due in large part to the City's location in the transition between the Murrieta Valley and Santa Ana Mountains. Undisturbed transitional areas between different geographic features and habitat types afford high habitat values for resident and migratory species that use each specific habitat type or move through the landscape during migration. Proposed urban land use would result in the fragmentation of habitats and the creation of isolated "postage stamp" or island habitat areas surrounded by urban development. Fragmentation of natural habitats (chaparral, coastal sage scrub, and riparian scrub and forest) and agricultural lands resulting from build out as proposed under the Murrieta General Plan would substantially reduce the habitat values provided by the currently undisturbed, and contiguous habitats connecting different geographic features and habitat types. Therefore this is considered to be a *significant impact*.

Implementation of the following mitigation measures or their incorporation into the General Plan as policies would reduce this impact to a *less-than-significant level*.

Mitigation Measures

- 4.4-1(a) *The City of Murrieta as a condition of project approval shall require the project proponent for each project within an area that contains significant natural habitat to develop and implement a wildlife and habitat management plan. The goal of the wildlife and habitat management plan will be to set forth specific development guidelines to ensure the preservation and survival of sensitive, unique, or locally limited flora and fauna that currently exist in the General Plan area.*
- 4.4-1(b) *The City of Murrieta shall ensure, as a condition of project approval that wildlife corridors within the General Plan area be established and preserved in perpetuity to permit free movement of resident and migratory wildlife and to integrate this free movement with the preservation of General Plan area wetland resources. Such corridors shall include the floodplain of Murrieta Creek, Warm Springs Creek, their associated tributaries and Cole Creek. Plans and projects proposed in sensitive areas shall preserve these major wildlife corridors and identify and preserve in perpetuity additional localized or project-specific wildlife movement corridors identified in the CEQA analysis required for such a project. Such localized corridors shall connect to the corridors associated with Murrieta Creek, Warm Springs Creek, and Cole Creek.*

Impact

- 4.4-2 Implementation of the proposed project may result in the loss or adverse modification of Riparian Scrub or Forest habitats, and loss of habitat values for both common and special-status wildlife species that utilize these on-site habitats. *This is a significant impact.*

Urban development of the General Plan area includes the construction and human occupation of residential, commercial, and active recreational development including roads and related infrastructure. Human habitation will replace the current chaparral and grassland habitats with an urban "edge" that may preclude certain wildlife use of the riparian Habitat. The introduction of human pets (dogs and particularly cats) into the area will also cause disturbance and loss of wildlife as a result of human presence.

Documented occurrences of the California gnatcatcher and Cooper's hawk, and potential habitat for numerous other special-status species, demonstrates the important habitat values associated with these interdependent communities. Therefore, loss of riparian habitat values is considered to be a *significant impact*.

Implementation of the following mitigation measures or their incorporation into the General Plan as policies would reduce this impact to a *less-than-significant* level.

Mitigation Measures

- 4.4-2(a) *Implementation of Policy COS-2.2b which states that the establishment of adequate buffer areas between sensitive habitats and development shall occur. Provide adequate setbacks to protect riparian habitats from roads and structures. Periodically review minimum riparian area setbacks to determine if setback distances are effective, and revise if necessary.*
- 4.4-2(b) *To the maximum degree feasible, designate as open space lands located within 100 feet from the top of bank or outside edge of riparian vegetation or a wetland boundary, which ever is greater, for perennial and intermittent streams and creeks, and wetland areas. The City shall prohibit grading, structures, planting of exotic plant species, and native vegetation removal within the 100-foot buffer zone.*
- 4.4-2(c) *Where proposed roadways or roadway improvement projects cross wildlife corridors, project proponents in consultation with the City of Murrieta and CDFG, shall design road crossings to accommodate wildlife corridors and facilitate the free passage of fish and wildlife species.*

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- 4.4-2(d) *The City as a condition of project approval shall require all projects involving grading in the vicinity of a natural watercourse to implement the use of "Best Management Practices" to control erosion during all construction activities.*
- 4.4-2(e) *The City as a condition of project approval shall require all projects in the vicinity of a natural watercourse to implement the use of "Best Management Practices" to avoid contamination of riparian habitat from urban stormwater runoff.*
- 4.4-2(f) *The City shall require strict covenants, codes, and restrictions for all land owners adjacent to riparian preserves to prohibit the dumping of refuse or yard clippings, the removal of vegetation, or the planting of exotic species within the riparian buffer zone.*

Impact

- 4.4-3 **Implementation of the proposed project will result in the filling or adverse modification of waters of the U.S. including wetlands, springs, and creeks. This is a *significant impact*.**

Wetland habitats, springs, and creeks are considered waters of the United States and, therefore, fall under the jurisdiction of the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act. The Corps has a goal of implementing the Federal policy embodied in Executive Order 11990 that can be summarized as no net loss of wetland values or acres. In achieving the goals of the Clean Water Act, the Corps seeks to avoid adverse impacts and offset unavoidable adverse impacts to existing aquatic resources.

The CDFG, pursuant to Section 1601-1603 of the Fish and Game Code has authority over work within the 100-year flood plain, consisting of but not limited to the diversion or obstruction of the natural flow or changes in the channel, bed, or bank of any river, stream, or lake.

Therefore, the net loss of wetland values or acres due to filling, grading, or other activities related to development is considered to be a ***significant impact***.

Mitigation Measures

Implementation of the following mitigation measures or their incorporation into the General Plan as policies would reduce this impact to a *less-than-significant level*.

- 4.4-3(a) *The City of Murrieta shall establish and implement a "no net loss" wetland policy for the entire General Plan area. Avoidance of wetlands shall be a priority and, when not feasible, impacts shall be kept to a minimum. Compensation shall occur for any loss of wetland acres and/or values to ensure meeting the "no net loss" goal.*
- 4.4-3(b) *The City of Murrieta as a condition of project approval shall require the project proponent for each project containing wetlands to conduct a wetland delineation study. Wetland*

delineation studies shall be conducted by a qualified biologist in conformance with the most current U.S. Army Corps of Engineers methodology. The wetland delineation will be submitted to the Corps for formal verification and the City shall not accept any applications for land use entitlement unless accompanied by a Corps verified wetland delineation report.

- 4.4-3(c) *An individual permit, written authorization under an existing nationwide permit, or a written response stating that no further action is required, will be obtained from the Corps prior to the filling or other adverse modification of any of the verified delineated waters of the U.S. on the project site.*
- 4.4-3(d) *Where applicable, the City as a condition of project approval shall require project proponents to obtain a Streambed Alteration Agreement. The Agreement shall be submitted to DFG at least 30 days prior to the filling or adverse modification of any of the delineated wetland habitats including Murrieta Creek, Warm Springs Creek, and Cole Creek.*
- 4.4-3(e) *The City shall require that all wetlands avoided and/or other appropriate non-profit agency preserved shall be dedicated to the City or other appropriate non-profit entity, preserved through covenants enforceable by the City to ensure their maintenance and survival in perpetuity.*

Impact

- 4.4-4 **Implementation of the proposed project may result in the loss of special-status wildlife species or their habitat. This is a significant impact.**

The presence of wetland habitats, grasslands, chaparral, coastal sage scrub, and riparian habitats within the General Plan area creates the known or potential occurrence for the 12 special-status species listed in Table 4.4-1. Of these 12 species, eight have been observed within the General Plan area.

The General Plan area has within its boundaries seven habitat types, in which three could potentially support special-status species. The coastal sage scrub habitat has the potential to support the California gnatcatcher (observed on-site) and recent studies have shown approximately 8,000 acres of the General Plan area could potentially support the Stephens' kangaroo rat.⁸ In addition, the open grasslands support foraging habitat for numerous resident and migratory raptor species such as northern harrier, merlin, prairie falcon, and golden eagle.

Buildout of the General Plan would convert hundreds of acres of existing natural habitat into urban uses through rough and finished grading, construction of buildings, roads, recreational parks, and placement of related infrastructure. Approximately 1,962 acres of natural open space habitat is planned for preservation as part of the project.

4.4 Biological Resources

Therefore, potential impacts to special-status species habitat is considered to be a *significant impact*.

Implementation of the following mitigation measures or their incorporation into the General Plan as policies would reduce this significant impact to a *less-than-significant level*.

Mitigation Measures

4.4-4 *All new project submittals shall be reviewed for their potential environmental impact to biotic resources. Any new project on vacant land shall have a preliminary "walk-over" field inspection performed by a qualified biologist. For any site that has been previously graded or otherwise disturbed, a field inspection may not be necessary. The determination on whether or not a field inspection is required will be made by the Planning Department on a case by case basis.*

As a result of the qualified biologist's preliminary field inspection, he/she will recommend one of three possible courses of action. They are as follows:

1. No further evaluation needed due to the absence of sensitive biotic resources.
2. Completion of a Biological Survey (or Assessment) if an important habitat and/or special-status wildlife/plant species known in the region is present on or suspected to inhabit the project site. Surveys shall be conducted in accordance with the most current DFG/USFWS guidelines or protocols for determining the time of year and survey methodology.
3. The preparation of a Biological Impact Report if any special-status wildlife/plant species are present on the site base on observation or sign.

Surveys and subsequent reports shall include at a minimum.

- A complete list of species observed on the project site for inclusion in the report.
- A detailed description of methodology including dates of field visits, the names of survey personnel with resumes, and a list of references cited and persons contacted.
- Survey results which include at a minimum:
 - A map showing the location(s) of any special-status species identified on the project site.
 - A detailed description of any identified special-status species population including information on the density, distribution, and habitat quality relative to typical occurrences of the species in question.

- A discussion of the importance of the population(s) with consideration of both nearby populations and total species distribution.
- An assessment of significance related to project impacts to any special-status species populations identified on the project site.
- Recommended mitigation measures to lessen any anticipated significant impacts. Such mitigation measures might do the following:
 - *Demonstrate and ensure that the special-status species populations in question shall be protected on site. This shall include adequate buffer zones and financial means that will ensure the protection and management of the preserve lands in perpetuity.*

or

- *Should on-site preservation be infeasible, the City of Murrieta in consultation with DFG and/or USFWS if warranted shall require that a mitigation plan be developed and implemented by the project proponent that will preserve the species at an off-site location. This could be accomplished on suitable public lands or through the purchase of fee title or conservation easement on suitable private lands to ensure protection of the preserve lands in perpetuity. The funding shall also include the amount necessary to maintain, monitor, and provide for remedial actions to ensure the establishment of the species at the new location.*

Determinations of significance shall at a minimum, be made in consideration of the following criteria:

- *The status of the species in question (officially listed by the State or Federal Endangered Species Acts, candidate species, species of special concern, etc.)*
- *The relative density and distribution of the on-site occurrence to typical occurrences of the species in question.*
- *The habitat quality of the on-site occurrence relative to historic, current, or potential disturbance to the population.*

Impact

- 4.4-5 Implementation of the proposed project will result in the loss or destruction of potential habitat for the Stephens' kangaroo rat. *This is a significant impact.*

The U.S. Fish and Wildlife Service listed Stephens' kangaroo rat (SKR) as endangered in 1988. The Endangered Species Act (ESA) prohibits any action that could take, harm, harass, or further endanger the species, including the loss of its habitat. The incidental take provision of the ESA allows the loss of individuals of an endangered species and its habitat, provided that a Habitat Conservation Plan (HCP) is prepared. The HCP identifies preserve areas where land could be purchased to mitigate for the loss of habitat elsewhere within the species range and establishes a user fee to finance the HCP program. The Murrieta General plan is within the Stephens' kangaroo rat HCP fee area. For the Stephens' kangaroo rat, the fee is \$1,000.00 for large lot residences and \$1,950.00 per acre for other developments. These development fees are used to purchase land within designated study areas. None of the Stephens' kangaroo rat Study Areas and known occupied habitat defined by the SKR HCP are found within the General Plan area, although the Santa Rosa and Lake Skinner study areas are located immediately west and northeast, respectively, of the General Plan area. Recent studies have documented approximately 8,000 acres of potential SKR habitat. Therefore, impacts to the Stephens' kangaroo rat or its habitat is considered to be a *significant impact*.

Implementation of the following mitigation measures or their incorporation into the General Plan as policies would reduce this impact to a *less-than-significant level*.

Mitigation Measures

- 4.4-5(a) *The City of Murrieta shall require all project proponents proposing development in SKR habitat to participate in the Stephens' Kangaroo Rat Habitat Conservation Plan unless the City is a member of the Habitat Conservation Agency (HCA). If the City is a member of the HCA, the rules and procedures of the HCA shall apply. This plan will allow incidental take under section 10(a) of the Endangered Species Act. Issuance of the 10(a) permit would enable the City to issue development permits resulting in the "incidental take" of SKR, where take is defined as any activity that would harm, kill, harass, or endanger SKR in the course of construction.*

Impact

- 4.4-6 Implementation of the proposed project may result in the loss or destruction of rare, threatened or endangered plant species. *This is a significant impact.*

As discussed in the setting section, and exhibited in Table 4.4-1, there are twelve special-status plant species that potentially occur in the General Plan vicinity. Implementation of the proposed project will result in the loss of habitats that could potentially support rare, threatened or endangered plant species. Therefore this is considered to be a *significant impact*.

Implementation of the following mitigation measures would reduce this impact to a *less-than-significant level*.

Mitigation Measures

4.4-6(a) *Implementation of Policy COS-2.1(f) which states that development projects will assess the total habitat value of a site rather than simply the presence or absence of special-status species.*

4.4-6(b) *Implement Mitigation Measure 4.4-4.*

Impact

4.4-7 **Implementation of the proposed project will result in the loss or degradation of undeveloped habitat areas connecting to the Santa Rosa Plateau Ecological Reserve. This is a significant impact.**

The Santa Rosa Plateau Ecological Reserve is a cooperatively managed natural area of approximately 7,000 acres which is recognized internationally for its biological diversity, its rare and endangered species of plants and wildlife, its beauty, and for the high degree of cooperation between state, federal and local governments and the private sector in ensuring the protection of this natural resource. The Santa Rosa Plateau Reserve was created because of the unusual concentration of rare, threatened, and endangered species and natural communities that are found on this property. The reserve also acts as an important habitat bridge between the Santa Ana, Santa Margarita, and Aqua Tibia Mountains, providing food, shelter, and transit corridors for large populations of numerous species of mammals, birds, other wildlife, and plants. Development of lands adjacent to the reserve will create an urban "edge affect" that may preclude certain wildlife use of the Santa Rosa Plateau. The introduction of human pets (dogs and particularly cats) into the area will also cause disturbance and loss of wildlife as a result of human presence. This will significantly reduce the values of the ecological reserve. This is considered a *significant impact*

These lands along the City's western boundary are proposed as equestrian residential, open space, single family residential, recreation/parks, and light industrial land use. With the exception of the areas designated open space, development of these land uses offer little to no wildlife or native plant habitat values. To protect and preserve these valuable areas in close proximity to the ecological reserve, natural open space, and agricultural lands would be more compatible land uses. Of particular importance are the lands within Cole Canyon and further south along the City's western boundary. Cole Canyon and Cole Creek currently provide an open space link between the Nature Conservancy Reserve and Murrieta Creek. Without protection of this wildlife corridor, the areas of natural open space to the west of the City would not benefit from the Murrieta Creek corridor proposed in the General Plan. Providing this connection and others between the open space areas to the west and Murrieta Creek would help to ensure continued access of wildlife to Murrieta Creek.

4.4 Biological Resources

Implementation of the following mitigation measures or their incorporation into the General Plan as policies would reduce this impact to a *less-than-significant level*.

Mitigation Measures

- 4.4-7(a) *The Land Use Plan shall be modified, designating as open space a corridor along Cole Creek connecting to Murrieta Creek and to the areas of designated open space to the south. Said corridor shall be maintained in a natural condition to promote the movement of wildlife.*
- 4.4-7(b) *Prior to approval of projects proposed within Cole Canyon, the City of Murrieta shall require that the project proponent prepare, a plant and wildlife management plan. The project proponent shall work in cooperation with The Nature Conservancy and reserve managers in developing and implementing the plan in order to conserve and protect biological resources in this area.*

ENDNOTES

1. Holland, R.F. 1986. *Preliminary descriptions of the terrestrial natural communities of California*. State of California, the Resources Agency, Department of Fish and Game.
2. Soule, M.E. 1991. "Land use planning and wildlife maintenance: Guidelines for conserving wildlife in an urban landscape." *Journal of the American Planning Association* 57(3): 313-323.
3. California Department of Fish and Game, California Natural Diversity Data base, Computer listing and map locations of historic and current recorded occurrences of special-status species and natural communities of special concern for USGS 7.5 minute quadrangle maps: Temecula, Murrieta, Bachelor Mtn., Wildomar, Romoland, Lake Elsinore, Pechanga, Fallbrook, and Winchester.
4. Tierra Madre Consultants. 1989. *Copper Canyon Country Club Specific Plan EIR*.
5. San Diego Association of Governments and Recon, *Draft Comprehensive Species Management for the Least Bell's Vireo*, 1990.
6. Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1*, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
7. Department of Defense. 1986. Corps of Engineers Regulatory Program Regulations. Federal Register, vol. 51, no. 219, November 13, 1986.
8. LSA Consultants. 1992. *Stephens' Kangaroo Rat Habitat Determination*. City of Murrieta.

POPULATION, HOUSING AND EMPLOYMENT

4.5 POPULATION, HOUSING, AND EMPLOYMENT

INTRODUCTION

This section assesses potential impacts related to population, housing, and employment associated with the Murrieta 1993 General Plan. Although the California Environmental Quality Act does not require the inclusion of socioeconomic analysis in EIRs, the effects on population, housing, and employment are useful considerations in evaluating the magnitude and significance of proposed land use policies. This section describes the policies related to population, housing, and employment contained in the Murrieta 1993 General Plan and the expected consequences of those policies. The population, housing, and employment projections developed from the Land Use Element of the Murrieta 1993 General Plan form the basis of the impact discussion.

The setting section summarizes some of the information presented in the Housing Element: Existing Conditions Report prepared by The Lightfoot Planning Group. Other information is summarized from the City of Murrieta Master Environmental Assessment (MEA). Section 3.5 in Chapter 3 (Population, Housing, and Employment) of the MEA is hereby incorporated by reference.

SETTING

POPULATION

Growth Trends

The 1990 Census recorded 18,978 residents within the area that became the incorporated boundaries of the City of Murrieta. The Murrieta sphere of influence had a population of 4,663 bringing the total 1990 General Plan area population to 23,641 persons. Estimates established by the Murrieta city staff indicate that the population of Murrieta in 1970 was approximately 542 persons and 2,255 in 1980. This would indicate a 316 percent population increase from 1970 to 1980, and a 742 percent increase from 1980 to 1990. Recent 1993 population estimates prepared by City staff identified a population of 31,797 persons in the City, indicating a 67.5 percent population increase since 1990. From 1980 to 1990 Murrieta grew at a faster rate than the neighboring City of Temecula and Riverside County as a whole. This is illustrated below in Table 4.5-1.

**TABLE 4.5-1
REGIONAL POPULATION GROWTH COMPARISONS**

Area	1980	1990	Growth	Percent Growth
City of Murrieta	2,255	18,978	16,723	742
City of Temecula	7,787	27,099	19,312	248
Riverside County	663,923	1,170,413	506,490	76

Source: 1990 Census; 1991 Murrieta Community Profile; Temecula Draft Housing Element

Population Characteristics

Age

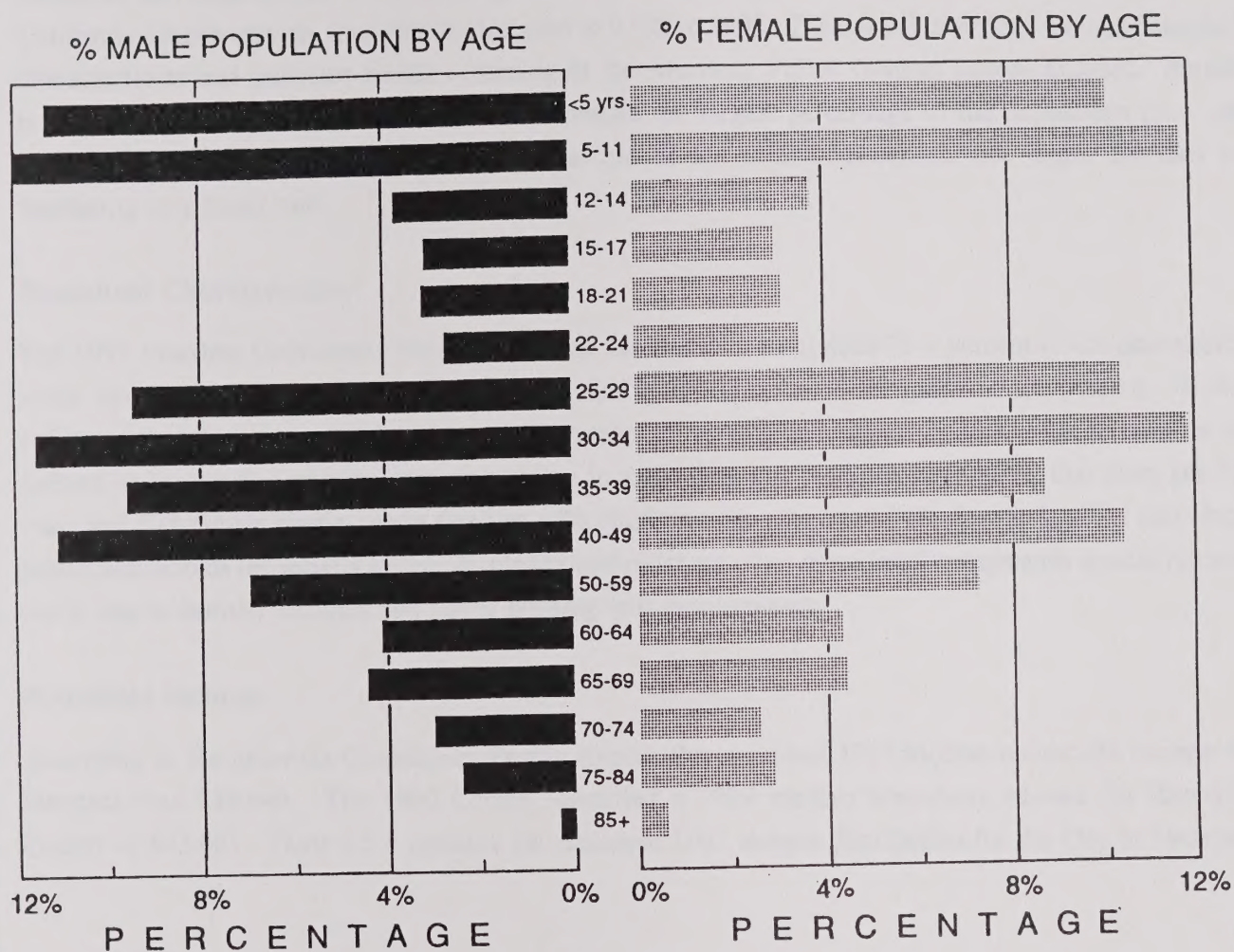
According to the 1991 Murrieta Community Profile prepared by the City, the median age in Murrieta is an estimated 31.9 years. Based on 1990 Census for the area encompassed by the Murrieta Valley Unified School District, 10.5 percent of the population is 65 years of age or older; 31.5 percent is in the middle age category, 35 to 64 years of age; 28.2 percent is in the young adult category, age 18 to 34; and 29.8 percent is under the age of 18. Figure 4.5-1 breaks down the 1990 population, by age and gender for the Murrieta Valley Unified School District.

Ethnicity

According to 1990 Census information, the population of the General Plan area is predominately White, comprising an estimated 81.7 percent of the population. The second largest ethnic group is the Hispanic population, at 13.7 percent. Asians comprised 3.1 percent of the Murrieta population, Blacks comprised 1.0 percent, native americans comprised 0.5 percent, and all others comprised less than 0.1 percent. Table 4.5-2 identifies these ethnic populations in the City, sphere of influence, and General Plan area.

**TABLE 4.5-2
POPULATION BY ETHNICITY BY PLAN AREA**

Group	City Area Total		Sphere		Plan Area Total	
	Pop.	%	Pop.	%	Pop.	%
White	15,377	80.7	3,992	85.6	19,369	81.7
Hispanic	2,704	14.2	541	11.6	3,245	13.7
Black	194	1.0	38	0.8	32	1.0
Indian	83	0.4	36	0.8	119	0.5
Asian	686	3.6	53	1.1	739	3.1
Other	11	0.1	5	0.1	16	0.1
Total	19,055	100	4,665	100	23,720	100



Male Median Age: 32.48 years
 Male Average Age: 32.75 years
 Male Population: 9,633

Female Median Age: 32.20 years
 Female Average Age: 33.13 years
 Female Population: 9,424

CITY OF MURRIETA

GENERAL PLAN ENVIRONMENTAL IMPACT REPORT

Source: 1990 U.S. Census,
 1991 Murrieta Valley School District Census Report

Murrieta 1990 Population By Age and Gender

FIGURE 4.5-1

Households

Household Size

The Department of Finance estimated that there were 6,421 households (occupied units) in Murrieta in 1990, with an average household size of 2.95. This is a significant increase from the 1980 count which identified 833 households with an average household size of 2.71. Based on information from Southern California Edison records, households increased to 9,892 in 1993. Table 4.5-3 describes various household characteristics and indicates trends occurring in the Murrieta Valley Unified School District. Smaller households continue to grow as a whole and remain the largest percentage of the population (one- and two-person households combined for 51.1 percent of the total households), but larger families are increasing at a faster rate.

Household Characteristics

The 1991 Murrieta Community Profile estimated that families comprised 75.1 percent of the households, while single persons comprised 13.3 percent, and other households comprised 11.6 percent. It was estimated that there were 928 large families/households residing in Murrieta in 1990. Large families are defined as having five or more persons residing in a dwelling unit. It is also estimated that there are 155 male and 523 female single-parent families with children under the age of 18. Large families and single parent households (especially female-headed households) are often considered groups with special housing needs due to limited incomes and larger housing unit requirements.

Household Incomes

According to the Murrieta Community Profile Report, the estimated 1991 median household income for Murrieta was \$33,949. The 1990 Census identified a 1989 median household income for Riverside County of \$33,081. Table 4.5-4 presents the estimated 1991 income distribution for the City of Murrieta.

Household Characteristics 1980 - 1990

Persons Per Occupied Housing Unit	1980		1990	
	Number of Households	Percentage	Number of Households	Percentage
1 Person	133	16.0%	905	12.9%
2 Persons	355	42.6%	2,678	38.2%
3 Persons	129	15.5%	1,230	17.6%
4 Persons	128	15.3%	1,262	18.0%
5 Persons	53	6.4%	599	8.5%
6 Persons	35	4.2%	215	3.0%
7 Persons or more	—	—	114	1.6%
Total Number of Households	833	100.0%	7,003	100.0%
Average Household Size	2.71		2.89	

CITY OF MURRIETA

GENERAL PLAN ENVIRONMENTAL IMPACT REPORT

Source: Murrieta Valley School District Census Report
1991 Murrieta Community Profile

Household Characteristics 1980 - 1990

TABLE 4.5-3

TABLE 4.5-4
1991 INCOME DISTRIBUTION OF MURRIETA, 1991

Income Ranges	Percent
0 To \$14,999	15.8
\$15,000 To \$24,999	20.1
\$25,000 To \$34,999	15.7
\$35,000 To \$49,999	17.2
\$50,000 To \$74,999	18.0
\$75,000 or More	13.2
Median	\$33,949

Source: 1991 Murrieta Community Profile

HOUSING

Growth Trends

The 1990 Census identified 9,062 housing units in Murrieta and 2,177 units in the sphere of influence. The State Department of Finance reports there were an estimated 10,474 housing units in the City of Murrieta in January, 1993. The Murrieta Valley Unified School District Census Report states that, in 1980, an estimated 2,434 housing units existed within the School District. Although these areas have different boundaries, this comparison illustrates the significant residential development that has occurred over the ten-year period. This growth in the housing stock has occurred through previous development of large residential specific plans.

Housing Characteristics

Type of Housing Stock

Table 4.5-5 presents the type of housing unit that existed in 1980 and 1990. In 1990, single-family detached units represented 67.8 percent of Murrieta's total housing stock. Mobile homes represented the second largest residential housing type, accounting for 16.3 percent. In 1993, the Department of Finance estimated that 75.6 percent of the units in the City were single-family dwellings, 15.6 percent were multi-family units (five or more attached units), and 6.7 percent were mobile homes.

**TABLE 4.5-5
HOUSING UNIT TYPE OF STUDY AREA 1980 & 1990**

Type Of Unit	1980		1990	
	No. of Units	Percent	No. of Units	Percent
1 Unit Detached	1,453	59.7%	7,522	67.8
1 Unit Attached	NA	NA	219	2.0
2 units	117	4.8%	18	0.2
3 to 9 units	NA	NA	514	4.6
10 or more units	165	4.3%	974	8.8
Mobile homes, Trailers, etc.	759	31.2%	1,813	16.3
Other	NA	NA	34	0.3
Total	2,434	100.0	11,093	100.0

Source: Murrieta Valley Unified School District 1980-1990 Census Report

Age of Housing Stock

Most housing in Murrieta is relatively new. As shown in Table 4.5-6, 79.5 percent of Murrieta's housing stock was constructed between 1980 and 1990. According to Department of Finance estimates, from 1990 to 1993, 1,412 additional units were added to Murrieta's housing stock.

**TABLE 4.5-6
AGE OF MURRIETA'S HOUSING STOCK**

Year Built	Percent
April 1980-1990	79.5
1979-March 1980	3.1
1975-1978	8.2
1970-1974	5.0
1960-1969	1.7
1950-1959	0.8
1940-1949	0.5
1939 or Earlier	1.1
Total	100.0

Source: Murrieta Valley Unified School District 1980-1990
Census Report

Tenure

The majority of the housing stock in Murrieta is owner occupied. According to the Murrieta Valley Unified School District Census Report, owner-occupied units increased as a percentage of total occupied households from 78.7 percent in 1980 to 82.1 percent in 1990. Renter occupied units on the other hand decreased from 21.3 percent in 1980 to 17.9 percent in 1990. This can be attributed to the fact that the Murrieta housing stock is primarily single-family detached dwellings and mobile homes, which are typically owner-occupied. As shown previously in Table 4.5-5, 15.9 percent of the units are multi-family units, which are more typically utilized for rental housing.

Vacancy Rate

The Murrieta area has experienced a fairly high housing vacancy rate. The Murrieta Valley Unified School District Census Report identified an 18.4 percent vacancy rate in 1980, which increased to 23.5 percent in 1990. This high vacancy rate in 1990 can be attributed to the large amount of construction that took place in the late 1980s which was followed by a slow-down in home sales. These two factors left a large standing inventory of newly constructed homes. The vacancy status of the units making up the 23.5 percent (2,615 units) is listed below in Table 4.5-7. The vacancy rate seems to have decreased over the last few years. A September 1993 report prepared by City staff, based on Southern California Edison records, indicates that there were 9,892 occupied housing units in Murrieta. This is about a 5.5 percent vacancy rate.

**TABLE 4.5-7
VACANCY STATUS OF MURRIETA, 1990**

Status	Percent
For Rent	35.1
For Sale Only	40.1
Seasonal	8.0
Other	16.8
Total	100.0

Source: Murrieta Valley Unified School District 1980-1990
Census Report

Housing Costs

According to local construction industry sources, 1992 new home retail housing costs equate to approximately \$100 to \$110 a square foot for one-story single-family detached homes, \$80 to \$90 per square foot for two-story single-family detached homes, and \$75 to \$80 per square foot for multi-family housing units. The 1991 Murrieta Community Profile identified a median housing sales price of \$150,600.

Due to current economic trends and the possible downsizing of units to meet consumer needs, it is estimated that the median home sales price in 1992 dropped to \$140,000.

According to local realtors, typical rental prices in Murrieta can range from \$400 to \$1,100 per month depending upon unit type, size, and location. The results of a survey conducted in September 1992 to estimate monthly rental and mortgage costs is illustrated below in Table 4.5-8.

TABLE 4.5-8
MONTHLY HOUSING COSTS OF MURRIETA - 1992

	1 Bdrm	2 Bdrm	3 Bdrm	4 Bdrm
Rent/Apt	\$450	\$550	-	-
Rent/House	-	\$725	\$850	\$1,000
Median Sales**	-	\$128,000	\$133,900	\$169,449
Monthly mrtg*	-	\$751	\$786	\$1,042

Source: Murrieta realtors and property managers; Sept 1992

*Assumes 30-year fixed 8.0% loan with 20% down payment and does not include property tax, insurance, special assessments, or homeowners association fees.

**Sales prices from Multiple Listing Service (MLS) January 1992-Present, resale homes only, no new home sales included.

EMPLOYMENT

The 1990 Census information (interpreted from the census tract block groups which form Murrieta and portions of surrounding communities) indicate the largest segment of the civilian work force, 36.7 percent, are employed in occupations related to technical, sales, and administration support fields. The second largest occupational group, at 25.4 percent, were professionals, executives and managerial positions.

The 1990 Census identified the Service Industries such as health, education, and other professional services, as providing the largest percentage of the jobs, 17.1 percent. Retail industries provided 15.8 percent of the jobs, construction industries 14.9 percent, and manufacturing industries included 13.5 percent.

The current labor force, comprised of individuals over the age of 16, includes an estimated 318 persons employed by the military and 17,409 employed civilians. An estimated 1,033 persons, or 5.5 percent of the labor force, are unemployed.

IMPACTS AND MITIGATION MEASURES

Methodology

The population, housing and employment growth for the City of Murrieta is based on full development of the City in accordance with the land use pattern and permitted development intensities contained in the proposed Land Use Element of the Murrieta General Plan. The housing projection assumes development of all residentially-designated areas in the City at the maximum permitted density. The projected population is derived from this housing projection, combined with assumptions regarding vacancy rates and average household size. Estimates of future employment are generated using factors based on assumed amount of building floor area per employee for each non-residential land use category. These employment factors are derived from the California Office of Planning and Research, Economic Practices Manual.

The baseline numbers for population and housing are from the 1990 Census, and the employment figures are taken from the estimates developed by the Southern California Association of Governments (SCAG). For purposes of this analysis, the assumed buildout year is 2015.

Standards of Significance

In accordance with CEQA Guidelines, standards indicate that a project will have a significant effect on population, housing and employment if it will:

- Induce substantial growth or concentration of population, housing, and/or employment not anticipated in local, regional or State plans;
- Displace a large number of people;
- Result in growth inconsistent with the SCAG growth forecasts.
- Substantially alter the location, distribution, density, or growth rate of the human population of the area.

Evaluation of the significance of impacts in relation to this criteria is provided in the following discussion.

Impact

4.5-1 Upon buildout of the General Plan, an additional 38,255 dwelling units could be added to the housing stock of the City and the sphere of influence. This is considered a *less-than-significant impact*.

There are currently about 10,474 housing units in Murrieta and approximately 2,177 units in the sphere of influence. Buildout of the General Plan is estimated to result in a total of approximately 50,906 dwelling units in the City and the sphere of influence. This represents approximately a 300% increase in housing units compared to current conditions. Most of these new units (80%) would be single-family

dwellings. Assuming a vacancy of 5.5 percent, this housing unit projection would equate to a total of 48,106 households (occupied units) in the General Plan area.

Mitigation Measure

4.5-1 *No mitigation is required.*

Impact

4.5-2 **Upon buildout of the General Plan, the population of the General Plan area would increase by about 105,450 persons. This is considered a *less-than-significant impact*.**

The current population of the City and sphere of influence is approximately 36,460 people. Occupied buildout of the General Plan, it is projected that the General Plan area will contain up to 48,106 households. Assuming an average household size of 2.95 persons, the General Plan area's projected total population at buildout would be 141,912. This represents approximately a 290% increase over the current estimated population of the City and sphere of influence.

Mitigation Measure

4.5-2 *No mitigation is required.*

Impact

4.5-3 **Upon buildout of the General Plan, it is projected that the employment in the City could increase by up to 63,000 jobs. This is considered a *less-than-significant impact*.**

It is estimated that approximately 10,100 jobs currently exist in the General Plan area. With the amount of non-residential development projected under buildout of the General Plan, it is estimated that employment in the City and sphere of influence could total about 73,200 jobs. This is estimated using the following employment generation standards for building floor area: office - one employee per 220 square feet, retail - one employee per 500 square feet, and industrial - one employee per 630 square feet.

It is a goal of the Southern California Association of Governments (SCAG) and the South Coast Air Quality Management District (SCAQMD) to achieve a more balanced distribution of jobs and housing among subregions in southern California. The purpose of this goal is to reduce the number vehicles miles travelled by commuters, thereby reducing air pollutant emissions from vehicles and also reducing traffic congestion. With this goal in mind, targets have been established for each subregion to increase either employment or housing opportunities in order achieve a jobs/housing balance. A subregion with a jobs/housing ratio of 1.22 is considered balanced.

Because Murrieta is a new city, no population, housing, or employment targets have yet been established for the City. The City is located in western Riverside County which is considered a "housing-rich" area (meaning it has a jobs/housing ratio less than 1.22). Therefore, the regional emphasis is to promote more

4.5 Population, Housing and Employment

employment opportunities in this subregion in order to catch up with recent housing growth and achieve a better jobs/housing balance. The land use policies of a city's General Plan can make a significant contribution toward achievement of the regional jobs/housing objectives or, conversely, can work against the achievement of these objectives.

The current jobs/housing ratio of the Murrieta General Plan area is about 0.80 (meaning it is a housing-rich area). Upon buildout of the General Plan, Murrieta would shift to jobs-rich area with a jobs/housing ratio of 1.43. Achievement of this high jobs/housing ratio will require a combination of robust economic conditions and a strong local market for commercial and industrial development. Even with favorable economic conditions, it will take many years for buildout of the non-residential land in the General Plan area to occur. Since the land use and economic development policies of the General Plan promote increased employment opportunities in the City, the proposed General Plan conforms with regional goals for improving the jobs/housing balance. In the long term, if non-residential buildout of the General Plan area occurs, the City could again face a jobs/housing imbalance by being jobs-rich and housing-poor -- opposite of current conditions.

Mitigation Measure

4.5-3 *No mitigation is required.*

UTILITIES

SECTION 4.6

4.6 UTILITIES

INTRODUCTION

This section assesses the potential impacts on utilities of the proposed Murrieta General Plan. Specific effects on existing levels of service, and improvements that would be required to accommodate development allowed under the proposed General Plan are discussed. This analysis is based on information supplied by the various water districts and utility purveyors serving the City of Murrieta.

The following setting section focuses on existing service and infrastructure for electricity, natural gas, water, wastewater, and solid waste and summarizes information provided in the City of Murrieta Master Environmental Assessment (MEA) Utilities Section. The Utility Section of the MEA, Chapter 3, Section 3.6, is hereby incorporated by reference.

SETTING

ELECTRICITY

All electricity is provided to the City of Murrieta by the Southern California Edison Company (SCE). There are a total of six existing substations that service the area, of which three are within the City of Murrieta and Sphere Area.

NATURAL GAS

The Southern California Gas Company (SCG) provides natural gas service to Riverside, San Bernardino and Imperial counties. The City of Murrieta is located within SCG's Ramona District of the Inland Empire. SCG provides the City with customer and distribution services. Natural gas is distributed through existing mains located under City streets which can be extended to serve new projects. Natural gas must be provided in accordance with the Gas Company's policies and extension rules on file with the California Public Utilities Commission at the time contractual agreements are made. SCG's policy of buying and storing natural gas for peak period use has, in the past, ensured that their supply network was more than adequate to provide service to all new customers. Although adequate supplies are available, most residents in the Sphere Area are currently using propane due to a lack of infrastructure.

WATER

Water service within the study area is provided by four retail water purveyors: Eastern Municipal Water District (EMWD), Elsinore Valley Municipal Water District (EVMWD), Rancho California Water District (RCWD), and Murrieta County Water District (MCWD). The Murrieta area overlies one of the largest

underground aquifer systems in Southern California, and as a result, groundwater is an important source of supply to each of the retail purveyors mentioned. Groundwater supplies are augmented by imported water from the Metropolitan Water District of Southern California. Water is imported to the region via the Colorado River Aqueduct. In addition to ground water and imported water sources, both Eastern Metropolitan Water District and Rancho California Water District are producing reclaimed water for use in and around the City. This water is currently being used primarily for groundwater recharge and landscape irrigation.

WASTEWATER

The City sewage system consists of both public and private facilities; developments that are outside the public sewer systems use on-site septic systems. Wastewater collection for the study area is provided by the four water districts described above, but only EMWD and RCWD provide wastewater treatment. Flows from the other districts discharge into RCWD and EMWD interceptors for treatment. The EMWD facility that provides treatment for Murrieta is called the Temecula Valley Regional Water Reclamation Facility (RWRF). RWRF has the capacity to treat 6.25 million gallons daily (mgd). RCWD operates two water reclamation plants: Joaquin Ranch Water Reclamation Facility (JRWRf), and Santa Rosa Water Reclamation Facility (SRWRf), both of which are located within the City of Murrieta. JRWRf has a maximum capacity of 0.60 mgd, while SRWRf has a maximum capacity of 5.0 mgd. Both districts wastewater treatment plants are currently operating under capacity and have plans for expansion. Both water and sewer conveyance systems are limited and constrained in some areas, and significant additional infrastructure will be needed to serve future development.

SOLID WASTE

Riverside County Waste Management is responsible for the disposal of solid waste in the county. Hauling services for the study area are provided by Waste Management of Inland Valley and a number of other private haulers. Waste from Murrieta is deposited in either the El Sobrante, Double Butte or Mead Landfill. Double Butte Landfill is scheduled to reach capacity in early 1994. The current footprint of the El Sobrante Landfill has approximately four million tons of capacity left and is expected to expire in 2005. The Mead Valley Landfill, which accepts approximately 633 tons of waste per day, has limited remaining capacity, approximately 660,000 tons, and is expected to close in 1998.

Eagle Mountain landfill, located in the lower desert, was approved by the County Board of Supervisors in October 1992. This landfill would be able to accept up to 20,000 tons of waste per day and has an anticipated life of 100-years. This landfill is currently in the permitting process and should be operational in two to three years, barring delays caused by litigation.

The City currently participates in curbside recycling, and a Source Reduction Element is also under preparation in conformance with Assembly Bill 939, the California Integrated Waste Management Act of 1989. AB 939 requires that cities and counties reduce the amount of solid waste being sent to landfills

by 25 percent over the next five years (by January 1, 1995), and by 50 percent over the next ten years (by January 1, 2000).

Relevant Policies of the Murrieta General Plan

There are 25 policies within the Conservation and Open Space and Land Use sections of the Murrieta General Plan addressing utilities. These policies are listed below:

Policy COS-1.6a: Require new construction and development to install water-conserving fixtures and appliances.

Policy COS-1.6b: Encourage the retrofitting of existing systems with water-conserving fixtures and appliances.

Policy COS-1.6c: Require new construction and development to incorporate the principles and practices of sound landscape design and management, particularly those conserving water and energy.

Policy COS-1.6d: Encourage the retrofitting of existing landscapes to incorporate the principles and practices of sound landscape design and management, particularly those conserving water and energy.

Policy COS-1.6e: Utilize the programs and assistance of state and regional water agencies to increase water conservation throughout the community.

Policy COS-4.1a: Encourage the development and use of renewable energy sources such as solar, wind, and geothermal within the Plan Area.

Policy COS-4.1b: Encourage the use of energy efficient technology in all new and retrofitted development. Such technology may include energy efficient building designs, efficient lighting systems, and the use of energy efficient appliances.

Policy COS-4.1c: Encourage the reuse and recycling of products and materials.

Policy COS-4.1e: Pursue the development of a comprehensive energy plan for Murrieta. Any future plan should include provisions for the use of solar panels, fuel efficient public vehicles, and the promotion of energy efficiency and conservation.

Policy COS-4.2a: Decrease dependence on nonrenewable energy sources such as electricity, natural gas, and transportation fuels by applying energy conservation techniques in public

facilities. Appropriate conservation concepts include improved technology, the reduction of unnecessary use, and the conservation of related resources.

Policy COS-4.2b: Implement Title 24 Building Energy Standards for residential, commercial, institutional, and industrial structures through the process of issuing building permits.

Policy COS-4.2c: Promote utility-sponsored conservation programs for the community.

Policy COS-4.2d: Implement the proposals of the Regional Air Quality Management Plan (AQMP) and the Air Quality Element of the Murrieta General Plan.

Policy COS-4.2e: Develop and implement an Integrated Waste Management Program, in compliance with state law.

Policy LU-3.1a: Encourage development of vacant land that is presently served by existing urban services prior to the development of land that is not served. Urban services include streets, water, sewer, and other utilities and services.

Policy LU-3.1b: Ensure coordination with service providers is accomplished through project development review.

Policy LU-3.1c: Future development shall occur where the ability to provide urban services is assured. "Leap frog" development isolated from urban services is discouraged.

Policy LU-3.2a: Review all development proposals to ensure adequate public facilities are available.

Policy LU-3.2b: All new development will provide the appropriate level of services and utilities to adequately serve the proposed uses.

Policy LU-3.2c: All development will have adequate public facilities to serve the project assured prior to the issuance of building permits.

Policy LU-3.3a: Develop Master Plans for all public facilities and utilities that are provided by the City of Murrieta.

Policy LU-3.3b: Coordinate with other public and private utilities to assist in their Master Plan efforts to ensure adequate utilities are available for future development.

Policy LU-3.3c: The City will inform all affected public agencies of development applications and coordinate public infrastructure requirements.

Policy LU-3.3f: Identify financing programs to provide affordable utilities to Commercial, Business Park, and Industrial designated lands.

Policy LU-3.3g: New development and redevelopment shall underground all on-site distribution utilities.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

A project would have a significant impact on utilities if it would:

- Result in a significant increase in the consumption of water, natural gas, and electricity or substantial expansion in facilities; or
- Result in adverse secondary effects for the expansion of any utility system; or
- Require additional staff or substantial equipment in order to maintain acceptable levels of service.
- Generate solid waste in an amount that could not be accommodated by existing available landfill capacity.
- Result in generation of wastewater above the projected capacities of affected wastewater treatment plants.

Electricity Impact

4.6-1 Buildout under the plan would result in the consumption of approximately 1,836 million kilowatt hours (mkwh) per year of electricity. This would result in a net increase in consumption of 1,494 kwh per year or a 435 percent increase over existing levels. This is a *less-than-significant impact*.

Electricity usage was estimated using factors from Southern California Edison (SCE) and the Los Angeles Department of Water and Power. The total estimated consumption of electricity under the Murrieta 1993 General Plan is roughly 1,836 mkwh per year. (See Table 4.6-1) This includes residential, commercial and industrial development.

SCE has indicated that the increased demand for electricity would be within the parameter of their overall projected growth for the area. New development occurring under the proposed General Plan would be subject to State Energy Conservation Standards for New Residential and Non-Residential Buildings. (Title 24, Part 6, Article 2, California Administration Code). Under the Code, prescriptive standards establish mandatory maximum energy consumption levels for new buildings which serve to reduce consumption within permissible levels established by public policy. In addition to compliance with Title 24, the Murrieta General Plan contains several policies which would further reduce energy consumption by encouraging the use of energy efficient technology, and promoting energy conservation. Policies which

address the use of electrical energy are Conservation and Open Space Policies 1.6c and d, 4.1a, b and e, 4.2a, b, c and d. In addition, Land Use Policies 3.1, 3.2 and 3.3 ensure that development will occur in a manner that facilitates the construction of an integrated distribution system.

**TABLE 4.6-1
MURRIETA ELECTRICITY USAGE
EXISTING AND FUTURE WITH PROJECT**

LAND USE	SIZE	GENERATION FACTOR ^a	YEARLY GENERATION (MILLION KILOWATT-HOUR)
EXISTING			
Residential	12,651 du	55,627 kwh/du/yr ^b	71
Commercial	475 acres	383,328 kwh/ac/yr ^c	244
Industrial	71 acres	383,328 kwh/ac/yr	27
TOTAL			343
PROJECT			
Residential	50,906 du	5,627 kwh/du/yr	286
Commercial	1,565 acres	514,008 kwh/ac/yr	804
Industrial	1,945 acres	383,328 kwh/ac/yr	746
TOTAL			1,836
INCREASE			1,494

^a SCAQMD CEQA Handbook, April 1993, Table A9-11-A; SCAQMD Air Quality Handbook, April 1987

^b kwh/du/yr = kilowatt-hour per dwelling unit per year

^c kwh/ac/yr = kilowatt-hour per acre per year

Electricity Mitigation Measure

4.6-1 *None required.*

Natural Gas Impact

4.6-2 **Buildout of the Murrieta General Plan would result in the consumption of approximately 9,077 million cubic feet per year of natural gas. This would represent a net increase of 7,336 million cubic feet per year (421 percent) of natural gas over existing levels of consumption. This is a *less-than-significant impact*.**

Projections of natural gas consumption for residential, commercial and industrial land uses are shown in Table 4.6-2. It should be emphasized that the development anticipated in these projections will occur incrementally over the life of the project. Furthermore, natural gas needs will be evaluated on a project by project basis and service will be verified prior to project approval. SCG's policy of buying and storing natural gas for peak period use has, in the past, ensured that their supply network was more than adequate to meet customer obligations and to provide service to all new customers. Although SCG would be able

to accommodate the increased consumption of natural gas, the Murrieta General Plan includes policies which will encourage natural gas conservation. Policies in the Murrieta General Plan which address the efficient use of natural gas are Conservation and Open Space Policies 1.6c and d, 4.1a, b and e, 4.2a, b, c and d.

**TABLE 4.6-2
MURRIETA GAS CONSUMPTION
EXISTING AND FUTURE WITH PROJECT**

LAND USE	SIZE	CONSUMPTION FACTOR ^a	YEARLY GENERATION (MILLION CUBIC FEET)
EXISTING			
Single Family Residential	9,564 du	6,665 cf/du/mo ^b	765
Multi-Family Residential	3,087 du	4,012 cf/du/mo	149
Commercial	475 acre	126,324 cf/ac/mo ^c	720
Industrial	71 acre	126,324 cf/ac/mo	107
TOTAL			1,741
PROJECT			
Single Family Residential	40,993 du	6,665 cf/du/mo	3,279
Multi-Family Residential	9,913 du	4,012 cf/du/mo	477
Commercial	1,565 acres	126,324 cf/ac/mo	2,372
Industrial	1,945 acres	126,324 cf/ac/mo	2,948
TOTAL			9,077
INCREASE			7,336

^a SCAQMD CEQA Handbook, April, 1993, Table A9-12-A; SCAQMD Air Quality Handbook, April 1987

^b cf/du/mo = cubic feet per dwelling unit per month

^c cf/ac/mo = cubic feet per acre per month

Natural Gas Mitigation Measure

4.6-2 *None required.*

Water Impact

4.6-3 **Buildout of the proposed General Plan would result in the consumption of approximately 15,760 million gallons per year (mgy). This represents a net increase in water use of approximately 12,272 mgy or 352 percent. This is a *potentially-significant impact*.**

Anticipated water demand associated with buildout of the General Plan is shown in Table 4.6-3.

**TABLE 4.6-3
MURRIETA WATER DEMAND
EXISTING AND FUTURE WITH PROJECT**

LAND USE	SIZE	DEMAND FACTOR ^a	YEARLY GENERATION (MILLION GALLONS)
EXISTING			
Residential	12,651 du ^b	200 g/p/d ^c	2,771
Commercial	475 acres	3,600 g/a/d ^d	624
Industrial	71 acres	3,600 g/a/d	93
TOTAL			3,488
PROJECT			
Residential	50,906 du	200 g/p/d	11,148
Commercial	1,565 acres	3,600 g/a/d	2,056
Industrial	1,945 acres	3,600 g/a/d	2,556
TOTAL			15,760
INCREASE			12,272

^a Eastern Municipal Water District

^b with an average of three persons per dwelling unit

^c g/p/d = gallons per person per day

^d g/a/d = gallons per acre/day

Because development will occur incrementally, the water districts serving Murrieta anticipate being able to handle increased water demands. Given that large areas of the City and sphere proposed for development lack infrastructure, comprehensive planning will be required to ensure that incremental infrastructure improvements are designed in the context of a coordinated and integrated City-wide system. As part of routine project level review, the City has adopted and is currently in the process of implementing City guidelines for preparation of public facility financing plans. The guidelines call for project applicants to provide an inventory of existing and proposed facilities for seven public utilities, plus buildout assumptions, phasing information, and financing proposals.

Although Murrieta has adequate water supplies to handle additional demand, the increased consumption of water projected with buildout of the General Plan is considered regionally significant. Policies which address water conservation are Conservation and Open Space Policies 1.6 a, b, c, d, and e. These policies ensure that future developments incorporate water-saving devices and techniques beyond those required by State law, in order to reduce water demand. The policies also ensure that new development adheres to all applicable State and municipal laws requiring water-efficient plumbing fixtures in structures. Beyond these policies, the following mitigation measures are recommended:

Water Mitigation Measures

- 4.6-3(a) *Include a policy in the Conservation and Open Space Element requiring dual plumbing systems in large new developments as reclaimed water becomes available over the next ten years.*
- 4.6-3(b) *Include a policy in the Conservation and Open Space Element to encourage the use of reclaimed water where appropriate and feasible as a water source for industrial use and to irrigate large landscaped areas.*

Implementation of these measures, in addition to the aforementioned policies, would reduce the impact to less-than-significant.

Wastewater Impact

- 4.6-4 **Buildout of the General Plan would result in the generation of approximately 7,288 million gallons per year (mgd) of wastewater. This would result in a net increase of 5,305 mgd or a 268 percent increase over current generation. This is a *potentially significant impact*.**

Anticipated wastewater generation associated with buildout of the General Plan is shown in Table 4.6-4. Due to the lack of infrastructure in many areas of the City and sphere, Master Plans for utilities, including sewer facilities, will need to be prepared and adequate services will have to be verified and made available before new projects are approved. Land Use Policies 3.1, 3.2 and 3.3 ensure that development within Murrieta progresses in a manner that facilitates the construction of a coordinated, integrated sewer system.

In addition, Conservation and Land Use policies that encourage water conservation would reduce the amount of wastewater generated and would therefore reduce the impacts to the sewer system caused by new development.

Wastewater Mitigation Measure

- 4.6-4 *Implement Land Use Element Policies 3.1, 3.2 and 3.3 in addition to Conservation and Land Use Policy 1.6.*

Implementation of this mitigation measure would reduce this impact to a less-than-significant level.

**TABLE 4.6-4
MURRIETA WASTEWATER GENERATION
EXISTING AND FUTURE WITH PROJECT**

LAND USE	SIZE	GENERATION FACTOR ^a	YEARLY GENERATION (MILLION GALLONS)
EXISTING			
Residential	12,651 du ^b	100 g/p/d ^c	1,385
Commercial	475 acres	3,000 g/a/d ^d	520
Industrial	71 acres	3,000 g/a/d	77
TOTAL			1,983
PROJECT			
Residential	50,906 du	100 g/p/d	5,574
Commercial	1,565 acres	3,000 g/a/d	1,714
Industrial	1,945 acres	3,000 g/a/d	2,130
TOTAL			9,418
INCREASE			7,435

^a Eastern Municipal Water District

^b with an average of three persons per dwelling unit

^c g/p/d = gallons per person per day

^d g/a/d = gallons per acre/day

Solid Waste Impact

4.6-5 Under the proposed General Plan, approximately 185,904 tons per year of solid waste would be generated. This is an increase of 138,141 tons per year, or 300 percent, over current generation rates. This is a *potentially-significant impact*.

Regional constraints on the availability of landfill capacity are such that this increase in solid waste generation is considered a regionally significant impact. However, the City is currently in the process of preparing a comprehensive SRRE which will contain measures to reduce the amount of waste disposed at landfills. Implementation of the SRRE will ensure that the City reduces solid waste generation in accordance with State requirements under AB 939. Local landfills have adequate capacity to accommodate waste generated in Murrieta for the next few years. Riverside County Waste Management anticipates continued growth within the Southwest County and long-range plans are being prepared to ensure that when these landfills reach capacity, Eagle Mountain or other landfills will be available for use.

**TABLE 4.6-5
MURRIETA SOLID WASTE GENERATION
EXISTING AND FUTURE WITH PROJECT**

	POPULATION	GENERATION FACTOR ^a	YEARLY GENERATION (TONS)
EXISTING	36,460	1.31 t/c/yr ^b	47,763
FUTURE WITH PROJECT	141,912	1.31 t/c/yr	185,904
INCREASE			138,141

^a Riverside County disposal estimates for two comparable cities in southwest Riverside County, adjusted downward 10 percent for recycling

^b t/c/yr = tons per capita per year

Solid Waste Mitigation Measures

4.6-5 *Implement Conservation and Open Space Policies 4.1-c and 4.2-e, which requires compliance with the source reduction requirements of AB939.*

Implementation of this mitigation measure would reduce this impact to a less-than-significant level.

PUBLIC SERVICES

SECTION 4.7

4.7 PUBLIC SERVICES

INTRODUCTION

Public services include fire protection, law enforcement, schools, libraries, and parks and recreation. This section analyzes the potential increases in demand on public services that would occur with growth projected under the proposed General Plan.

This analysis is based on information supplied by the City of Murrieta Police Department, the Murrieta Fire Protection District, the school districts serving the study area, Riverside County Service Area (CSA 143), Parks and Recreation Department, and the Riverside County Free Library.

The information on existing conditions presented below is summarized from the City of Murrieta Master Environmental Assessment Public Services Section which provides a more detailed discussion of public services. The City of Murrieta Master Environmental Assessment, Public Services Section, is hereby incorporated by reference.

SETTING

FIRE PROTECTION

The Murrieta Fire Protection District (MFPD) provides services that include fire prevention, suppression, planning and engineering, disaster preparedness, rescue services, and emergency medical services. The sphere area is served by the Riverside County Fire Department (RCFD) through a contract with the California Department of Forestry (CDF). These agencies also provide overlapping service under agreements for automatic aid and wild-land fire response. At this time the MFPD has two fully operational stations and one constructed but not yet operational. MFPD has a total of 43 full-time employees and 50 volunteers. To meet future fire protection needs, the MFPD has three additional stations planned, and two additional stations under consideration.

LAW ENFORCEMENT

There are three law enforcement agencies that have jurisdiction within the city and sphere area: the Murrieta Police Department (MPD), the Riverside County Sheriff's Department (RCSD), and the California Highway Patrol. The MPD formed on August 1, 1992, provides services within the city limits. MPD employs 34 full-time officers, eight dispatchers and one secretary. This provides a ratio of .8 officers per 1,000 residents. Services provided by the MPD include dispatching emergency calls for police, fire and medical services, responding to calls for service, patrolling, enforcing all laws,

investigation traffic collisions and providing crime prevention education programs. The RCSD provides services to the sphere area from a station located next to French Valley Airport, east of Winchester Road. The station is staffed with 107 employees which includes 62 field deputies. The CHP has jurisdiction within the study area along Interstate 15, 215, and State Highway 79.

SCHOOLS

There are five school districts which provide school services to the residents of the city and sphere area: Murrieta Valley Unified School District (MVUSD), Menifee Union School District, Perris Union School District, Hemet Unified School District, and Temecula Valley School District. Murrieta Valley Unified school District provides the majority of school services for the city and the southeastern portion of the sphere area. As is true for all of the districts, MVUSD has experienced rapid growth and a number of schools are over or near capacity. As a result of these conditions, MVUSD, and the other districts are pursuing aggressive schedules for the acquisition and development of new schools. Due to declining availability of funding from federal and state sources over the last several years, school funding, and the identification of sites is an important issue for the developing study area.

LIBRARY SERVICES

The study area is currently served by the Temecula Library, a branch of the Riverside County Free Library located in the City of Temecula. This facility is not of an adequate size to serve both communities. A library planning firm has been selected by the County and is currently developing a community analysis of the Murrieta, Wildomar, and Lake Elsinore area to identify where new library services should be located.

PARKS AND RECREATION

On July 1, 1993 the Board of Supervisors of Riverside County approved the creation of a Community Service District for the City of Murrieta. Prior to this date Riverside County Service Area (CSA) 143 was responsible for providing park and recreation services to the city and sphere area. The study area is served by fifteen parks, totaling 125.75 acres. Based on a 1990 population of 23,641 (city and sphere) the study area has a ratio of 5.32 acres of parkland per 1,000 population. In addition to these parks, there are also a number of planned and proposed trail systems within the study area.

Relevant Policies of the Murrieta General Plan

Land Use Element Policies

Policies within the Land Use Element of the Murrieta General Plan that address public services and serve to reduce potential growth related impacts of the Plan are listed below:

Policy LU-1.6a: Designate school district administrative, elementary, middle school and high school sites as Civic/Institutional in the Land Use Element.

- Policy LU-3.2a:** Review all development proposals to ensure adequate public facilities and services are available.
- Policy LU-3.2b:** All new development will provide the appropriate level of services and utilities to adequately serve the proposed uses.
- Policy LU-3.2c:** All development will have adequate public services to serve the project assured prior to the issuance of building permits.
- Policy LU-3.3a:** Develop Master Plans for all public facilities and utilities that are provided by the City of Murrieta.
- Policy LU-3.3c:** The City will inform all affected public agencies of development applications and coordinate public infrastructure requirements.
- Policy LU-3.3d:** Coordinate with public agencies for the provision of public services including local government, public education, library and other public activities and facilities.
- Policy LU-3.3e:** The City will cooperate with school districts and other public agencies and service districts to ensure that necessary and desirable public facilities are available. Educational facilities included are primary and secondary schools and institutions of higher education.

Public Safety Element Policies

The Public Safety Element of the Murrieta General Plan contains a number of policies that address public services. The following policies are those found within the Element that most directly offset the potential for impacts on public services:

- Policy S-6.1a:** In cooperation with the Murrieta Fire Protection District maintain and if necessary strengthen review of projects and development proposals, and upgrade fire prevention standards and mitigation measures in areas of high fire hazard, and throughout the City.
- Policy S-6.1e:** In cooperation with the Murrieta Fire Protection District strive to achieve a five-minute, or less, response time for fire and medical emergencies, ninety percent of the time, to all areas of the City.
- Policy S-6.1f:** In cooperation with the Murrieta Fire Protection District, strive to achieve a minimum staffing ratio of 1.5 career-uniform fire fighters per 1,000 population.

- Policy S-6.1g:** In cooperation with the Murrieta Fire Protection District, strive to achieve one engine company for each 3,500 dwelling units and for each 3.5 million square feet of commercial or industrial development.
- Policy S-7.1a:** Strive to achieve a staffing ratio of 1.5 sworn police officers per 1,000 population.
- Policy S-7.1b:** In order to provide adequate police service to new development, evaluate the feasibility of providing office space within planned and proposed fire stations to serve as field stations for police personnel.
- Policy S-7.1d:** In cooperation with the Police Department, ensure all new development incorporates safe building/site designs, such as visible walkways/hallways and proper lighting of common areas and parking lots.

Conservation and Open Space Element Policies

The Conservation and Open Space Element of the Murrieta General Plan contains a number of policies that address public services. The following policies are those found within the Element that most directly offset the potential for impacts on public services:

- Policy COS-5.1b:** Establish a library for the community of Murrieta.
- Policy COS-7.1a:** Establish and maintain a per capita acreage standard of 5 acres of local parkland per 1,000 population.
- Policy COS-7.1d:** Distribute park land such that all geographic areas of the City will be located within the service radii of local parks. The following service areas are recommended standards for local parks:
- | | |
|-----------------------|----------------------------|
| City-wide Park | City-wide service area |
| Community Park | 1 to 2 mile service radius |
| Neighborhood Park | 1/2 mile service radius |
| Mini/Special Use Park | 1/4 mile service radius |
- Policy COS-7.1h:** Adopt a ten-year Park and Recreation Master Plan which includes facility and park development standards, methods for park acquisition and development, and procedures for park and recreation fees and dedications. The Plan shall identify the location of potential park land areas, as well as the current and projected park and recreation needs of the community. Review the Park and Recreation Master Plan on an annual basis.

Policy COS7.2b: Require, by ordinance, the dedication of local park acreage, the payment of fees, or some combination of both for park and recreational purposes, as authorized by the Quimby Act (Section 66477, Subdivision Map Act).

IMPACTS AND MITIGATION MEASURES

Standards of Significance

In accordance with the CEQA Guidelines for Implementation of CEQA, the proposed project would result in a significant impact on Public Services if it would:

- Require additional staff and equipment in order to maintain acceptable levels of service; or
- Have a significant effect on or result in a substantial need for new, altered, or expanded police, fire, library, school, or recreation and park services.

An evaluation of the potential impacts of the General Plan in relation to this criteria is provided in the following discussion.

Police Impact

4.7-1 Buildout under the proposed General Plan would result in a need for approximately 53 additional police officers to maintain existing levels of service. This is a *significant impact*.

Currently the MPD provides services only within the city limits and not within the Sphere Area. With 18 sworn officers, the officer to citizen ratio for the MPD is .5 officers per 1,000 population. Buildout of the proposed General Plan would increase the population of the study area by approximately 105,452 persons. To maintain a City service level of approximately .5 officers per 1,000 population, buildout of the proposed General Plan area would require approximately 53 additional police officers as well as support staff and related facilities. This is considered a significant impact.

Police Mitigation Measure

4.7-1 *Implementation of Land Use Element Policies 3.2a, 3.2b, 3.2c, and Safety Element Policies S-7.1a, S-7.1b, and S-7.1d would reduce this impact to a less-than-significant level.*

These policies include requirements for the review of development proposals to ensure that adequate public services are available to serve projects prior to issuance of building permits. Furthermore, Policy S-71a states that the City will strive to achieve a staffing ratio of 1.5 officers per 1,000 persons, which would support a level of police services above the level currently provided.

Fire Impact

4.7-2 Increases in population and employment under the proposed General Plan would increase the need for fire protection and emergency services, requiring additional emergency

responses and the need for additional fire protection personnel, fire prevention personnel, and related support facilities. This is a *significant impact*.

The MFPD Fire Protection Plan recommends that a ratio of 1.38 career-uniform firefighters per 1,000 population be maintained. To maintain this ratio of fire protection personnel to population, buildout of the General Plan study area would ultimately require an additional 145 career-uniform firefighters, along with necessary support staff, and related facilities. Anticipating increases in demand for fire protection services with projected growth in the area, the MFPD currently has plans for the development of three new stations within the City, and two addition stations are also under consideration to serve the sphere area.

In addition to staffing levels, the adequacy of fire protection for the City is based on required fire flow, response distance from existing fire stations, and the district's needs assessment for the area. In general, required fire flow is closely related to land use. As projects are proposed for development, they would be required to meet fire flow criteria, and all applicable fire codes and regulations set by the Uniform Fire Code. Additionally, policies contained in the proposed General Plan and ongoing planning efforts of the MFPD will support the continued maintenance of a high level of fire protection services.

Fire Mitigation Measures

4.7-2 *Implementation of Land Use Element policies LU-3.2a,b,c and Public Safety Element Policies S-6.1a, S-6.1e and S-6.1f would reduce impacts on fire services to a less-than-significant level.*

Library Impact

4.7-3 **Buildout of the proposed General Plan and associated increases in population would increase the demand for library services. This is a *significant impact*.**

Existing levels of library services are inadequate and growth projected under the plan would increase the demand for library services. In order to achieve and maintain adequate levels of library services additional libraries, personnel, and materials would be required. According to the Riverside County Library District, funding for library services is inadequate to support current demand. The adopted service level for the District is .5 square feet per capita which based on 1990 dollars is equivalent to a per capita cost of \$18.28. Without development providing a fair share toward funding new libraries to offset increases in population, library service will likely remain inadequate and could potentially worsen.

Library Mitigation Measure

4.7-3(a) *Implement Land Use Element Policies LU-3.2c, LU-3.3a, LU-3.3e, and Conservation Element Policy COS-5.1b.*

4.7-3(b) *Include a policy in the Land Use Element requiring new developments to contribute fees to the City Library to offset project demand on library services. Implementation of this mitigation measure would reduce this impact to a less-than-significant level.*

Park and Recreation Impact

- 4.7-4 Based on a parkland to population ratio of 5 acres/1000 population, buildout of the proposed general plan would generate a need for an additional 603 acres of parkland within the City and sphere area. This is a *significant impact*.

Buildout under the proposed General Plan would increase the population within the study area by approximately 105,452 persons. Based on the 5 acre/1,000 ratio of parkland to population proposed in the General Plan, the projected increase in population would create the need for an additional 527 acres of parkland. The proposed Land Use Plan designates 869 acres for parks and recreation. This figure includes existing and currently proposed parks and also includes private golf courses. In addition to this acreage, the Conservation and Open Space Element recommends an additional 616 acres of parkland for which in combination with currently proposed parks, more than compensates for the projected increase in demand for parkland. In addition to this acreage, the Conservation and Open Space Element also proposes a community trail system and concentrations of open space along the City's creeks.

Park and Recreation Mitigation Measure

- 4.7-4 *Implementation of proposed Conservation Element Policies COS-7.1a, COS-7.1d, COS-7.1h, and COS-7.2b and implementation of the proposed land use plan would reduce potential impacts on park and recreational facilities to a less-than-significant level.*

School Impact

- 4.7-5 Buildout under the proposed general plan could increase the number of children in the public school districts serving the study area by approximately 29,134 students. This is a *significant impact*.

Buildout under the proposed general plan is estimated to add approximately 38,255 new residential units to the General Plan area. Based on Murrieta Valley Unified School District generation factors of .53 for elementary, .14 for middle, and .17 for high school, 29,134 new students would be added to City schools.¹ There would be approximately 6,503 new high school students, 5,356 new middle school students, and 20,275 new elementary school students. To accommodate this increase in enrollment, additional schools, classrooms, teachers and materials would be required.

In the past, the combination of state school bond monies, developer fees, local school bond monies, and other sources of financing have generally been inadequate to provide for the enlargement and construction of school facilities to adequately house new students. With this in mind the General Plan policies referenced in the following mitigation measure provide for coordination with affected school districts to ensure adequate school facilities are in place prior to any new development.

School Mitigation Measure

4.7-5 *Implementation of Land Use Element Policies, LU-3.2a,b,c, and LU-3.3e, and the required payment of school fees would reduce impacts on schools to a less-than-significant level.*

ENDNOTES

1. Murrieta Valley Unified School District Planning Services, Development Fee Justification Report, July 14, 1992.

TRANSPORTATION / CIRCULATION

SECTION 4.8

Relevant Policies of the Murrieta General Plan

There are 51 policies within the General Plan relating to transportation and circulation issues. These policies are briefly summarized below:

- Policy C-1.1a:** Establish street standards and require that all new road facilities be constructed or upgraded, where feasible, to meet City standards.
- Policy C-1.1b:** Require an adequate evaluation of potential traffic impacts associated with proposed new developments prior to project approval, and implementation of appropriate mitigation measures prior to or in conjunction with project development.
- Policy C-1.1c:** Coordinate with Caltrans to implement necessary improvements at intersections where the agencies have joint jurisdiction.
- Policy C-1.1d:** Encourage development of parallel roads at a suitable distance from the I-15 Freeway and the I-215 Freeway to provide adequate intervals between freeway ramp intersections and parallel road intersections along the freeway access routes.
- Policy C-1.1e:** Periodically evaluate the Circulation Element roadway plan through utilization of the City of Murrieta Traffic Model. The model shall be updated every three years, or as needed.
- Policy C-1.1f:** Identify and evaluate the major intersections requiring special design treatment to increase their vehicular capacity.
- Policy C-1.1g:** Minimize the number, properly space, and interconnect traffic signals in order to maximize progression and minimize the acceleration/deceleration that produces significantly higher vehicular emission and noise levels.
- Policy C-1.2a:** Require new developments to be served by roads of adequate capacity and design standards to provide reasonable access by car, truck, transit, or bicycle.
- Policy C-1.2b:** Prohibit parking on all Urban Arterial, Arterial and Major roadways except in areas subject to special design guidelines (ie. Historic Murrieta), to increase the traffic capacity of these roadways and provide for bike lanes.
- Policy C-1.2c:** Establish speed restrictions throughout the City that relate to the design and operating characteristics of roadways.

4.8 TRANSPORTATION AND CIRCULATION

INTRODUCTION

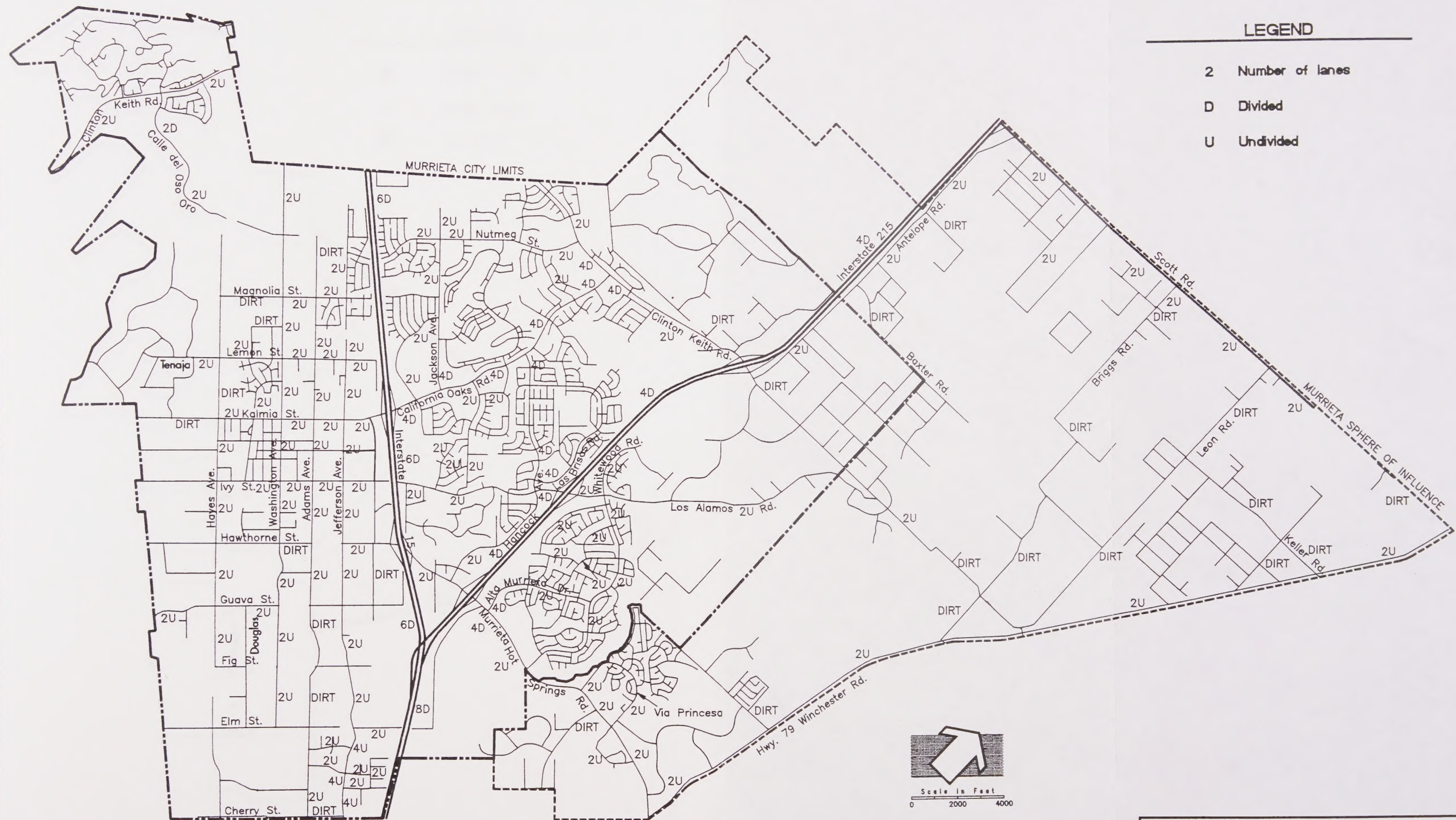
This section of the EIR will address the impacts of traffic associated with implementation of the proposed General Plan, as well as the physical improvements planned and policies proposed in the Circulation Element of the Plan to mitigate these effects.

The Transportation/Circulation section of the City of Murrieta Master Environmental Assessment (MEA) presents documentation of the existing circulation system within the City and its sphere of influence. The information contained in the MEA Transportation and Circulation Section is hereby incorporated by reference. All essential data for the impact analysis was obtained from the Murrieta General Plan Circulation Element Traffic Study prepared by Robert Kahn, John Kain and Associates (January 29, 1993).

SETTING

The City of Murrieta, with over 14,000 acres of undeveloped land (roughly 50 percent of the total land area) maintains a rural character. As a result, many of the arterial and collector street intersections remain unsignalized. Three freeway corridors; Interstate 15, Interstate 215, and State Route 79 traverse the City and provide local as well as regional access. Interstate 215 extends in a north/south direction through the central portion of the City, and State Route 79 runs in a northeasterly direction from the interchange at the I-15 through the eastern portion of the City toward the City of Hemet.

The City's current circulation system hierarchy is based on the Riverside County General Plan Circulation Element. The hierarchy consists of local streets, collector streets, and major and secondary arterials. The section summarizes the existing network of regional and local roadway features (i.e. travel lanes, intersection controls (Figure 4.8-1 and Figure 4.8-2), daily traffic volumes and conditions (Figure 4.8-3), and daily roadway capacity utilization (Figure 4.8-4). Several key intersections were also evaluated. According to the analysis, six intersections within the General Plan area currently operate at unacceptable Levels of Service (LOS) during the AM peak period, and seventeen intersections are affected during the PM peak period (Figure 4.8-5). Current traffic count data sheets and supplemental count source references are included in the MEA to provide an organized compilation of count information.

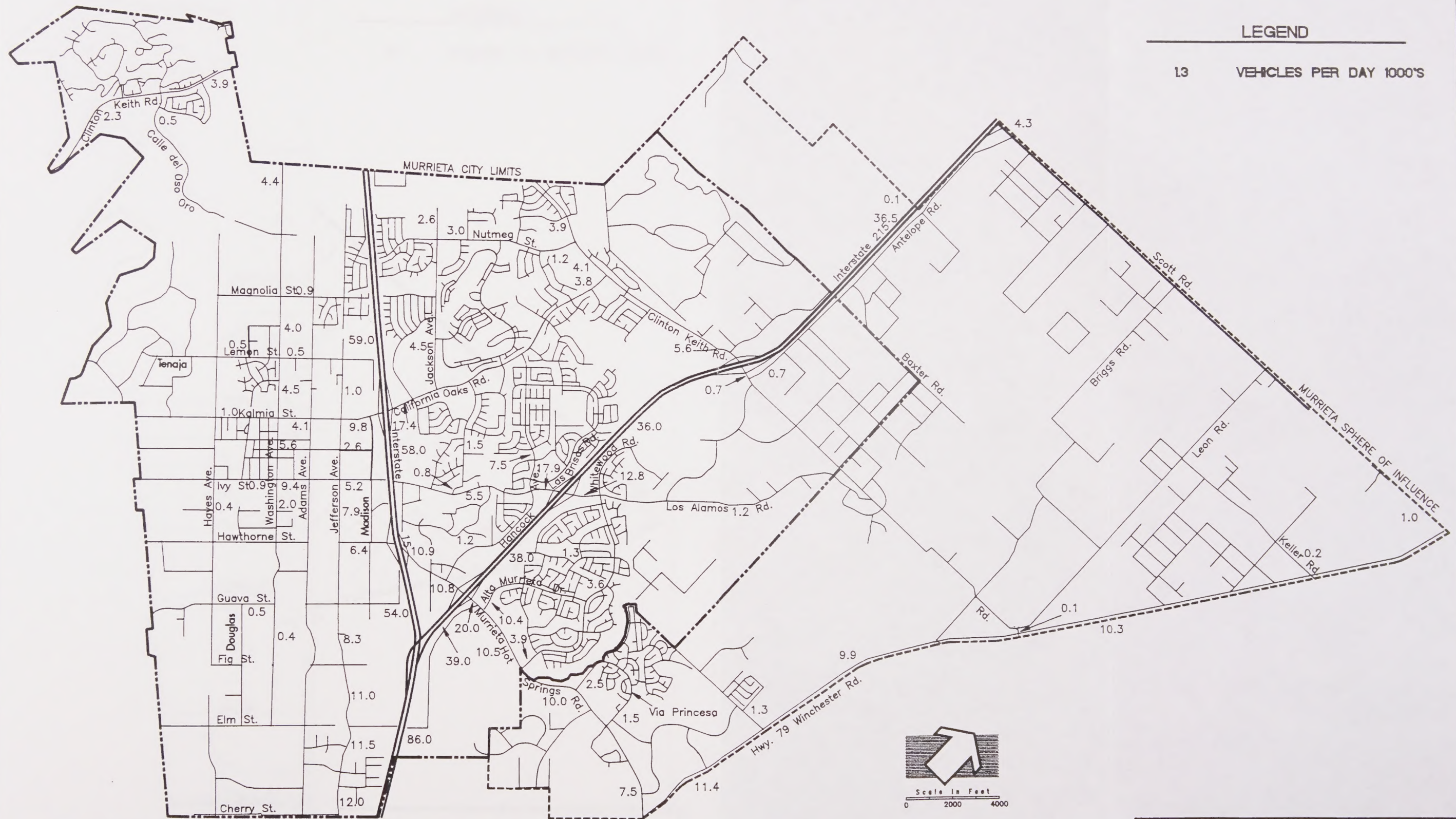


CITY OF MURRIETA

GENERAL PLAN ENVIRONMENTAL IMPACT REPORT

**Existing
Number of Through Lanes**

FIGURE 4.8-1

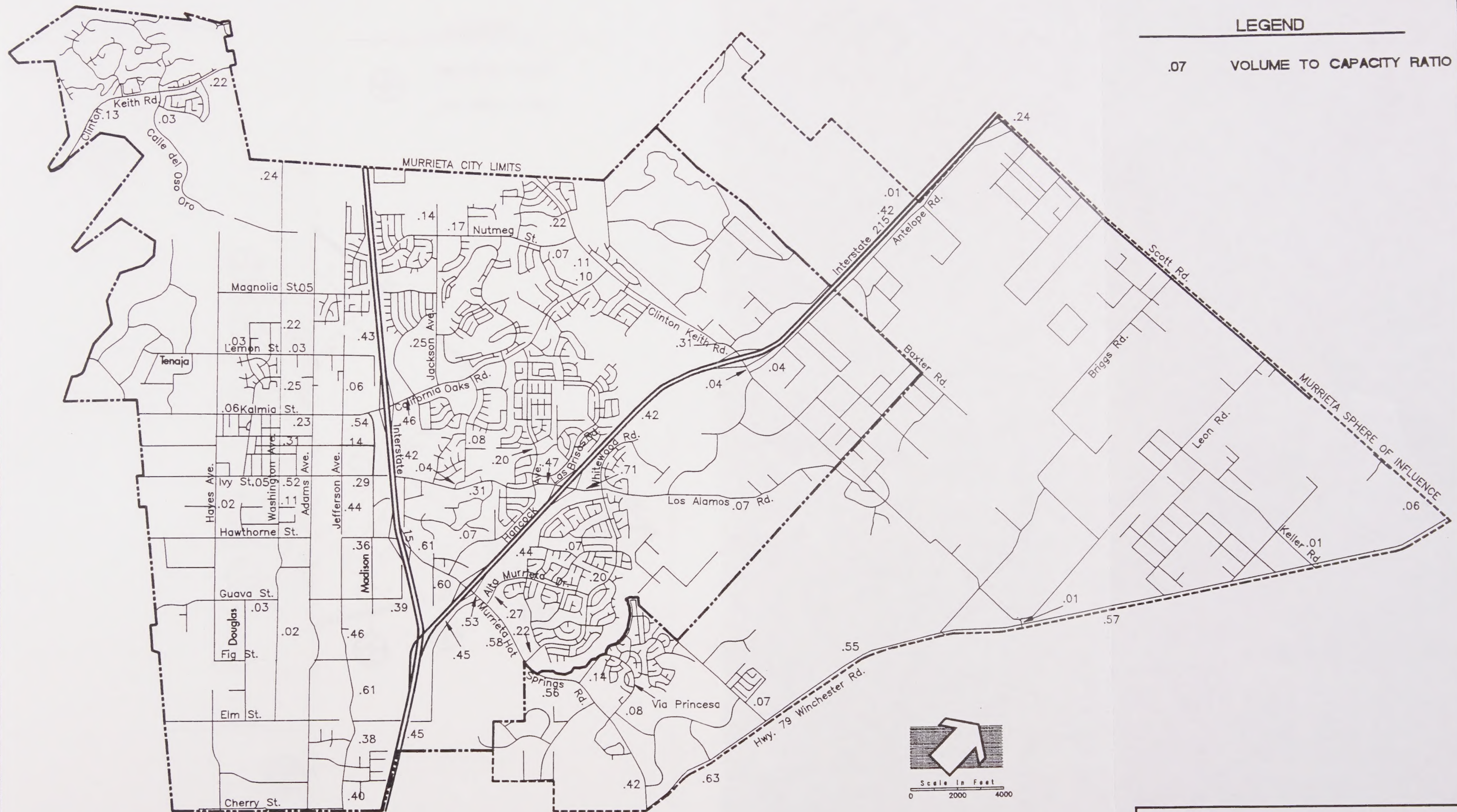


CITY OF MURRIETA

GENERAL PLAN ENVIRONMENTAL IMPACT REPORT

**Existing
Average Daily Traffic (ADT)**

FIGURE 4.8-3



Existing Daily Volume to Capacity Ratios

- Policy C-1.2d:** Require that future roads and improvements to existing roads be designed to minimize conflicting traffic movements such as turning, curb parking, and frequent stops.
- Policy C-1.2e:** Require that the development of new private driveways do not introduce significant traffic conflicts along General Plan roadway and collector and arterial streets.
- Policy C-1.2f:** Require that pedestrian and vehicular traffic be separated to the maximum feasible extent.
- Policy C-1.2g:** Establish an ongoing maintenance program to ensure the safety of the City's roadway system.
- Policy C-1.3a:** Enforce speed limits of 25 miles per hour in those areas defined by the California Vehicle Code as residential neighborhoods.
- Policy C-1.3b:** Establish weight restrictions where necessary on routes traversing through residential neighborhoods.
- Policy C-1.3c:** Review the design of all proposed new residential neighborhoods to ensure that "cut through" routes are minimized.
- Policy C-1.4a:** Identify and evaluate potential local revenue sources for financing roadway system development and improvement projects.
- Policy C-1.4b:** Pursue viable revenue sources to meet the roadway system funding needs from state and federal sources.
- Policy C-1.4c:** Implement street widenings and other circulation improvements which are related to new development in conjunction with citywide growth management efforts.
- Policy C-1.5a:** In the areas designated Equestrian and Rural Residential, allow an appropriate reduction in the widths of right-of-way and improvement sections on local serving streets to accommodate lighter traffic requirements and preserve rural character.
- Policy C-1.5b:** In hillside areas with slopes equal to or greater than 25 percent, allow reduced right-of-way and improvement sections to limit grading and cuts in topography, while allowing access for fire trucks and other emergency vehicles.

4.8 Transportation and Circulation

- Policy C-1.5c:** In Master Plan areas, allow flexible design standards for local residential streets incorporating such urban design concepts as neo-traditional town planning, pedestrian pockets, and others.
- Policy C-2.1a:** Support the update and completion of the Riverside County General Plan Circulation Element in response to the City General Plan Circulation Element.
- Policy C-2.1b:** Actively pursue the construction of a new interchange and frontage road connector system south of the I-15/I-215 confluence and other recommended system improvements in cooperation with state and local officials including Caltrans, the City of Temecula, Riverside County, and local developers. Measures should be taken to preserve anticipated right-of-way needs and to identify funding mechanisms for the interchange improvement.
- Policy C-2.1c:** Actively pursue the construction of a new east-west corridor and interchange south of Scott Road in cooperation with Caltrans, Riverside County, the City of Lake Elsinore and local developers.
- Policy C-2.1d:** Actively pursue the improvements to existing interchanges within the City and construction of new overpasses as required to achieve the adopted service level standards.
- Policy C-2.1e:** Coordinate with Western Riverside Council of Governments and Riverside County Transportation Commission to identify, protect, and pursue opportunities for light rail transit along major transportation corridors which connect Murrieta to other population centers.
- Policy C-2.1f:** Encourage the formation of a special Southwest County task force which would be responsible for identifying and prioritizing selected system improvements having regional significance and the development of funding sources which would allow for the timely implementation of these improvements.
- Policy C-3.1a:** Coordinate with the Riverside Coordinated Transportation Agency to provide fixed route transit service along transportation corridors connecting to employment and commercial areas, health care facilities, and major recreation areas.
- Policy C-3.1b:** Require construction of bus turnouts with shelters adjacent to new developments where transit demand levels may be sufficient in the future to warrant such accommodations.
- Policy C-3.1c:** Promote improved demand responsive transit services for elderly and disabled persons.

- Policy C-3.1d:** Provide for express transit service through implementation of park-and-ride facilities along regional transportation corridors.
- Policy C-3.1e:** Review site plans to determine if pedestrian access from the interior of new residential areas to public transit stops will be direct and convenient and in conformance with the ADA.
- Policy C-3.2a:** Create a system of bicycle lanes within the street right-of-way to meet the needs of both the local and commuter cyclist. The lanes shall be designed for the safety of the cyclist. The lanes should be linked to regional systems where feasible.
- Policy C-3.2b:** Adequate traffic control devices shall be provided for bicycle crossings.
- Policy C-3.2c:** Traffic signal phasing shall be adequate for bicycle turning and straight-through movements.
- Policy C-3.2d:** Off-street bicycle trails should use open space corridors, flood control, and utility easements where possible. Such trails shall minimize automobile cross traffic and be linked to regional systems where feasible.
- Policy C-3.3a:** Review site plans to determine if residential, commercial and office land uses are designed for pedestrian access. Future developments shall contain an internal system of trails linking schools, shopping centers, and other public facilities with residences.
- Policy C-3.3b:** Review site plans to determine if residential, commercial and office land uses are designed for pedestrian access. Future developments shall contain an internal system of trails linking schools, shopping centers, and other public facilities with residences.
- Policy C-3.4a:** Locate hiking and equestrian trails in appropriate areas identified as permanent open space, agricultural edges, public utility ROW's and easements, flood control channels, and areas designated for rural and equestrian density.
- Policy C-3.4b:** At the time of precise alignment studies, and in conjunction with the required environmental assessments, the City shall review trail proposals to determine the likelihood of potential impacts upon or from, existing or planned development. Mitigation measures or alternatives will be implemented where appropriate and feasible.
- Policy C-3.4c:** Motorcycles and other motorized vehicles shall be prohibited from using the trail system.

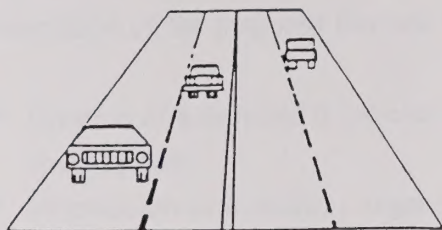
- y C-4.1a: Enforce the parking ordinance and standard requirements such as necessary design features, the number of required handicapped parking spaces, etc. in conjunction with the parking ordinance.
- y C-4.1b: Pursue methods of encouraging the provision of increased on-site parking supply through a range of techniques including redevelopment activities.
- y C-4.2a: Require developers to provide adequate on-site parking and/or to contribute to a program to acquire and/or maintain off-site joint use facilities.
- y C-4.2b: Work cooperatively with developers and the business community to develop funding mechanisms for the construction of future parking facilities.
- y C-5.1a: Require transportation demand management plans to be submitted for preliminary review at the Specific Plan or Plot Plan stage of site development and submitted for final approval prior to the issuance of building permits, in accordance with the City's Transportation Demand Management Ordinance.
- y C-5.1b: Encourage the implementation of employer Transportation Demand Management (TDM) requirements included in the Southern California Air Quality Management District's Regulation 15 of the Air Quality Management Plan.
- y C-5.1c: Establish a local Congestion Management Plan and monitor the performance and effectiveness of travel demand management programs within the City.

IMPACTS AND MITIGATION MEASURES

Methodology

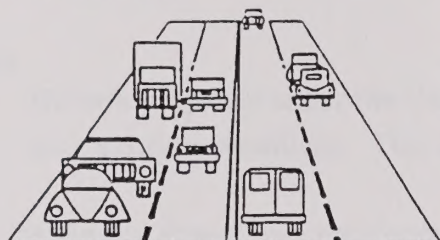
Impacts to traffic and circulation resulting from implementation of the Murrieta General Plan were assessed by examining the changes in level of service (LOS) and volume to capacity ratios (V/C ratio) existing conditions and for the Proposed General Plan. LOS is a function of the roadway V/C ratios; a volume to capacity ratio greater than 1.0 would indicate that the traffic volume exceeds the ultimate capacity of the roadway¹ and is operating at LOS F. The desired design capacity of a road (in most urban communities) is generally 80 percent of the ultimate capacity of the road or, LOS C. Therefore, a volume to capacity ratio greater than .8 (i.e., .81), while within the ultimate capacity of the roadway, would exceed desired design capacity (Figure 4.8-6).

"Level of Service"



Level of Service A is the highest quality of service a particular class of highway can provide. It is a condition of free flow in which there is little or no restriction of speed or maneuverability caused by the presence of other vehicles. Operating speed is in the highest range and density is low.

$V/C = 0.00 - 0.60$

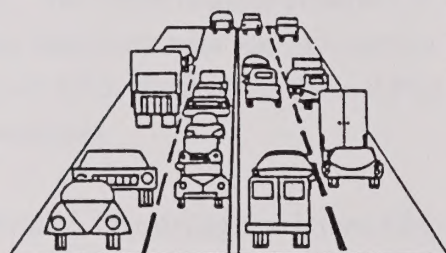


Level of Service B is a zone of stable flow. However, operating speed is beginning to be restricted by other traffic. Under freeway conditions the density is low, restriction on maneuverability is negligible, and there is a little probability of major reduction in speed or flow rate. This level of service approximates typical design volumes for high type rural highways including freeways.

$V/C = 0.61 - 0.70$

Level of Service C is still a zone of stable flow but at this volume and density level, most drivers are becoming restricted in their freedom to select speed, change lanes, or pass. Operating speeds are still in the range of $2/3$ to $3/4$ maximum. Density is from 30 to 35 vehicles per lane mile on freeways. This service level is generally selected as being an appropriate criterion for design purposes, particularly for urban freeways where the cost of providing the higher services levels during peak periods may be prohibitive.

$V/C = 0.71 - 0.80$



Level of Service D approaches unstable flow. Tolerable average operating speeds are maintained but are subject to considerable sudden variation. Freedom to maneuver and driving comfort are low because lane density has increased to between 45 and 50 vpm, and the probability of accidents has increased. Most drivers would probably consider this service level unsatisfactory.

$V/C = 0.81 - 0.90$

The upper limit of Level of Service E is the capacity of the facility. Operation in this zone is unstable, speeds and flow rates fluctuate, and there is little independence of speed selection or ability to maneuver. Since headways are short and operating speeds subject to rapid fluctuation, driving comfort is low and accident potential high. Although circumstances may make operation of facilities under these conditions necessary, it is clearly undesirable and should be avoided whenever feasible.

$V/C = 0.91 - 1.00$



Level of Service F describes forced flow operations after density has exceeded optimum which is normally in the range of 70 to 75 vpm on free flowing facilities. Speed and rate of flow are below the levels attained in zone E and may, for short time periods, drop to zero.

$V/C > 1.00$

CITY OF MURRIETA

GENERAL PLAN
ENVIRONMENTAL IMPACT REPORT

Level of Service Diagram

FIGURE 4.8-6

Standards of Significance

Impacts are considered significant if one or more of the following conditions would result from implementation of the proposed General Plan:

- Creation of a substantial increase in traffic related to the traffic load and capacity of the existing street system.
- Degradation of a roadway segment to a LOS of E or F.
- Creation of a demand on public transit greater than levels currently projected and planned for.
- Adoption of circulation plans, programs, or policies which conflict with the Riverside County Congestion Management Plan.

Impact

4.8-1 Growth projected under the General Plan would significantly increase traffic within the City over existing conditions. This is considered to be a *significant impact*.

Since the General Plan allows significant growth to take place in the City, significant increases in traffic would occur. Traffic conditions as measured by V/C ratio and LOS would experience higher levels of congestion in the year 2015 over existing conditions.

The Proposed Murrieta General Plan Circulation Element recommends improvements to the City's circulation system that increase roadway capacities and the overall efficiency of the City's transportation system. The improvements presented in the Element are intended to be implemented in phases as they become necessary with the introduction of new development in the City. Thus, the traffic volumes estimated for buildout of the General Plan and referenced in Table 4.8-1, assume implementation of these improvements.

Examination of existing conditions indicates that all roadway segments within the City and sphere of influence currently have V/C ratios that range from a minimum of .01 (LOS A) along Keller Road, to a maximum of .71 (LOS C) along Los Alamos Road between I-215 and Whitewood Road. Analysis of buildout of the Proposed General Plan would indicate that while most road segments would remain at or below LOS C, approximately thirty-three road segments would operate above LOS C despite the recommended roadway improvements. Of these road segments, eighteen would operate at LOS D, ten at LOS E, and five would operate at LOS F (Table 4.8-1).

**TABLE 4.8-1
PREFERRED PLAN POST 2015
ROAD SEGMENTS OPERATING ABOVE LOS C**

Road Segment	Classification	Roadway Capacity	Actual ADT	V/C/Ratios	LOS
JEFFERSON AVE.					
Date St. to City Limit	Augmented Major	59,000	50,000	.85 w/o	D
NUTMEG ST.					
Jackson Ave. to Falconer	Major	38,000	30,000	.81 w/o	D
CALIFORNIA OAKS RD.					
*I-15 to Monroe Ave.	Urban Arterials	59,000	58,000	.99	E
Monroe to Jackson Ave.	Urban Arterial	59,000	50,000	.85	D
Jackson to Lincoln Ave.	Major	38,000	33,000	.85	D
IVY ST.					
Hancock to I-215	Urban Arterial	59,000	67,000	1.13 w/o	F
CLINTON KEITH RD.					
*I-215 to Antelope Rd.	Multi-Modal Transportation Corridor	80,000	68,000	.85 w/o	D
Los Alamos Rd. to Auld Rd.	Multi-Modal Transportation Corridor	80,000	69,000	.87 w/o	D
HAWTHORNE ST.					
Washington to Adams	Major	38,000	32,000	.83	D
*Madison Ave. to I-15	Augmented Urban Arterial	72,000	63,000	.87	D

* = freeway ramp

TABLE 4.8-1 (continued)

Road Segment	Classification	Roadway Capacity	Actual ADT	V/C/Ratios	LOS
MURRIETA HOT SPRINGS RD.					
*I-15 to Hancock Ave.	Augmented Urban Arterial	72,000	60,000	.83	D
*Hancock Ave. to I-215	Augmented Urban Arterial	72,000	67,000	.91	E
*I-215 to Alta Murrieta Dr.	Urban Arterial	59,000	66,000	1.11	F
Alta Murrieta Dr. to Whitewood Rd.	Urban Arterial	59,000	48,000	.81	D
ALTA MURRIETA DR.					
Murrieta Hot Springs Rd to Whitewood Rd.	Major	38,000	32,000	.83	D
ELM ST.					
Jefferson to Madison	Major	38,000	44,000	1.16	F
DE LUZ RD.					
Western City Limit to Washington Ave.	Major	38,000	32,000	.84	D
DATE STREET					
*Madison to I-15	Augmented Urban Arterial	72,000	59,000	.82	D
*I-15 to Ynez Rd.	Augmented Urban Arterial	72,000	69,000	.95	E
LOS ALAMOS RD.					
Linnel Ext. to Golden Cities Rd.	Arterial	38,000	36,000	.93	E
AULD RD.					
Clinton Keith Rd. to Winchester Rd.	Major	38,000	33,000	.86	D

* = freeway ramp

TABLE 4.8-1 (continued)

Road Segment	Classification	Roadway Capacity	Actual ADT	V/C/Ratios	LOS
WINCHESTER RD.					
Date st. to Rancho Club Dr.	Multi-Modal Transportation Corridor	80,000	88,000	1.10	F
Rancho Club Dr. to Hunter Rd.	Multi-Modal Transportation Corridor	80,000	80,000	1.00	E
Hunter Rd. to Unnnamed	Multi-Modal Transportation Corridor	80,000	86,000	1.08	F
Unnnamed to Auld Rd.	Multi-Modal Transportation Corridor	80,000	79,000	.99	E
Auld Rd. to Clinton Keith Rd.	Multi-Modal Transportation Corridor	80,000	65,000	.81	D
Clinton Keith Rd. to Baxter Rd.	Multi-Modal Transportation Corridor	80,000	77,000	.97	E
Baxter Rd. to Unnnamed	Multi-Modal Transportation Corridor	80,000	77,000	.96	E
Unnnamed to Leon Rd.	Multi-Modal Transportation Corridor	80,000	75,000	.94	E
Leon Rd. to Unnnamed	Multi-Modal Transportation Corridor	80,000	65,000	.81	D
BAXTER RD.					
Zeiders Rd. to I-215	Urban Arterial	59,000	48,000	.82	D
Antelope Rd. to I-215	Urban Arterial	59,000	57,000	.96	E
Baxter Rd.					
Zeilders Rd. to I-215	Urban Arterial	59,000	48,000	.82	D
LEON RD.					
Golden Cities Rd. to Winchester Rd.	Major	38,000	33,000	.88	D

Source: EIP Associates July 93. Based on the City of Murrieta's General Plan Circulation Element Traffic Study, Exhibits K, O, & P, Prepared by Kahn and Kain.

In order to improve the flow of traffic on these road segments, up to 54 intersections may require additional capacity enhancements. In most instances, this would mean dual left-turn lanes and right-turn deceleration lanes at major intersection approaches. Intersections that may require capacity enhancements are shown in Table 4.8-2.

TABLE 4.8-2
INTERSECTIONS REQUIRING CAPACITY ENHANCEMENT

1. Washington Ave./Unnnamed	28. Clinton Keith Rd./Winchester Rd.
2. Jefferson/Nutmeg	29. Winchester Rd./Baxter Rd.
3. Jackson/Nutmeg	30. Winchester Rd./Unnnamed
4. Falconer Dr./Nutmeg	31. Winchester Rd./Leon Rd.
5. Clinton Keith Rd./Nutmeg	32. Hawthorne St./Madison Ave.
6. Zeiders Rd./Baxter Rd.	33. Hawthorne St. (S)/I-15 Fwy
7. Kalmia St./Madison Ave.	34. I-15 Fwy/Murrieta Hot Springs Rd. (E)
8. Kalmia St./I-15 Fwy	35. Murrieta Hot Springs Rd./Monroe Ave.
9. I-15/California Oaks Rd.	36. Murrieta Hot Springs Rd./Hancock Ave.
10. Tula Rosa Rd./California Oaks Rd.	37. Murrieta Hot Springs Rd. (W)/I-215 Fwy
11. Jackson Ave./California Oaks Rd.	38. I-215 Fwy/Murrieta Hot Springs Rd. (E)
12. Clinton Keith Rd./California Oaks Rd.	39. Murrieta Hot Springs Rd./Alta Murrieta Dr.
13. Clinton Keith Rd./Zeiders Rd.	40. Hancock Ave./Prop. I-215 Overpass
14. Clinton Keith Rd. (W)/I-215	41. Hancock Ave./Alta Murrieta Dr.
15. Baxter Rd. (W)/I-215 Fwy	42. Date St./Jefferson Ave.
16. Scott Rd. (W)/I-215 Fwy	43. Date St./Madison Ave.
17. Ivy St./Monroe Ave.	44. Date St. (W)/I-215 Fwy
18. Ivy St./Hancock Ave.	45. I-215 Fwy/Date St. (E)
19. Ivy St./I-215 Fwy	46. Elm St./Ynez Rd.
20. I-215 Fwy/Los Alamos Rd.	47. Elm St./Murrieta Hot Springs Rd.
21. Los Alamos Rd./Clinton Keith Rd.	48. Date St./Murrieta Hot Springs Rd.
22. I-215 Fwy/Clinton Keith Rd. (E)	49. Murrieta Hot Springs Rd./Winchester Rd.
23. Clinton Keith Rd./Antelope Rd.	50. Date St./Winchester Rd.
24. I-215 Fwy/Baxter Rd. (E)	51. Rancho Club Dr./Winchester Rd.
25. I-215 Fwy/Scott Rd. (E)	52. Hunter Rd./Winchester Rd.
26. Scott Rd./Antelope Rd.	53. Hunter Rd./Unnnamed
27. Clinton Keith Rd./Auld Rd.	54. Unnnamed/Auld Rd.

Source: EIP Associates July 93, Based on City of Murrieta General Plan Circulation Element Traffic Study, Exhibit "X," prepared by Kahn & Kain.

Mitigation Measures

- 4.8-1 *Implementation of Circulation Element policies C-1.1d through C-1.2g, C-1.4c, C-1.5a, C-2.1a through C-3.1b, C-3.1d, C-3.2a through C-3.2d, and C-5.1a through C-5.1c, involve methods of reducing peak hour traffic flows on local road segments and intersections. Implementation of these policies would reduce traffic impacts to a less-than-significant-level.*

The policies listed above include programs which ensure City compliance with the Riverside County Congestion Management Plan (CMP). Programs to be implemented by the City include: a Development Impact Monitoring Program which would require local jurisdictions to monitor the traffic impacts associated with area development; a Transportation Facilities Funding Program which would establish funding sources for future improvements; and a Local Transportation Management Program that would establish a city-wide Transportation Demand Management (TDM) Ordinance and Transportation System Management (TSM) strategy. While there is the potential for significant impacts to occur with projected growth, project by project review and compliance with these programs would provide adequate mitigation to reduce impacts to a *less-than-significant level*.

ENDNOTES

1. The ultimate capacity of any roadway (Major, Arterial, Secondary, Collector, etc.) is typically the upper end of LOS E or a V/C ratio of .91 to 1.00.

AIR QUALITY

SECTION 4.9

4.9 AIR QUALITY

INTRODUCTION

This section addresses air quality impacts associated with the proposed Murrieta General Plan. Additionally, this section discusses the plan in relationship to existing plans and planning policies of the South Coast Air Quality Management Plan, and the Western Riverside Council of Governments (WRCOG) Air Quality Implementation Program (AQIP). Where appropriate, mitigation measures are suggested that could minimize or eliminate potential significant air quality impacts. Baseline data was obtained from the South Coast Air Quality Management District (SCAQMD) and from the Murrieta General Plan Air Quality Element Existing Conditions Report.

The information contained in the setting discussion below is summarized from the City of Murrieta Master Environmental Assessment (MEA) Air Quality Section which can be referenced for a more detailed discussion of air quality. The City of Murrieta MEA Air Quality section is hereby incorporated by reference.

SETTING

For the purposes of air quality planning, Murrieta is located within the South Coast Air Basin, a 6,600 square-mile area encompassing Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The climate in the South Coast Air Basin (SCAB) is influenced by the topographic and geographic conditions of the basin. The basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino and San Jacinto mountains to the north and east. The region lies in the semipermanent high pressure zone of the Eastern Pacific. As a result, the climate is characterized by warm summers, mild winters, infrequent rainfall, frequent morning coastal fog, and moderate onshore breezes. Precipitation is generally limited to a few storms during the winter "wet" season between November and April. Rainfall patterns in the region average about 12-13 inches per year.

The dominant daily wind pattern in the basin is a diurnal sea breeze followed by a nocturnal land breeze. This pattern is broken only by occasional winter storms and infrequent strong northeasterly Santa Ana winds from the mountains and deserts. The net effect of this dominant daily wind pattern is that daytime air pollutant emissions from coastal sources are carried inland and nighttime winds carry the inland pollution to the coastal areas. However, the weak nighttime wind conditions can allow for localized stagnation of pollutants inland.

National and state air pollution containment standards are set by the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB), for the following pollutants: ozone, carbon monoxide, nitrogen dioxide, PM₁₀ (suspended particulate matter 10 microns or less in diameter), sulfur dioxide, and lead. The South Coast Air Quality Management District (SCAQMD) also monitors for compliance with two other state standards: sulfates and visibility. Containment levels in the ambient air are sampled and compared to national and state standards to determine air quality.

The South Coast Air Quality Management District (SCAQMD) samples ambient air quality at over 38 monitoring stations in the basin. The South Coast Air Basin is considered to have the worst air quality problem in the nation. Despite having introduced many strict air pollution emission controls, the basin still fails to meet the federal air quality standards for four of the six criteria pollutants; ozone, carbon monoxide, nitrogen dioxide and PM₁₀. Ozone levels exceed national and state standards throughout the basin. In 1989, the basin was the only area in the nation that failed to meet nitrogen dioxide standards. Carbon monoxide and ozone concentrations in the basin were among the highest in the nation, (approximately three times the federal standard), and particulate (PM₁₀) concentrations were approximately 80 percent above federal standards.

Most of the basin's air quality problems stem from continued growth in population, heavy industry and vehicle traffic, however, area topography and climatology also factor in. The mountains and hills which surround the basin, act as barriers and trap pollutants that are not blown out of the basin with the daily onshore flows. These trapped pollutants begin to accumulate and air quality in the basin worsens. Thermal inversions in the basin effectively trap the polluted air and prevent further dispersion.

The city of Murrieta is located in SCAQMD's Air Quality Monitoring Area 26. The closest station in the monitoring area is a new station that began operation in the city of Temecula in 1991. The station monitors ozone, carbon monoxide, nitrogen dioxide, and PM₁₀. In 1991, the station measured excessive amounts of ozone (federal and state 1-hour standards were exceeded) and PM₁₀ (state 24-hour standard was exceeded).

The SCAQMD and the Southern California Association of Governments (SCAG) have been designated to develop regional air quality plans for the SCAB. An Air Quality Management Plan (AQMP) adopted in 1979 and revised in 1989, projects attainment of all national standards by the year 2007. Strategies to meet this goal include technological measures and the achievement of a better balance between jobs and housing in the basin to reduce commuter vehicle trips.

The California Clean Air Act, enacted in 1988, requires that regional emissions be reduced by 5 percent per year, averaged over 3 year periods, until attainment can be demonstrated. Areas not meeting standards must prepare a plan to demonstrate compliance. Areas with the most heavily degraded air, such as the South Coast Air Basin, must reduce emissions 50 percent from 1987 levels by December 31, 2000.

In July 1991, the SCAQMD adopted a new AQMP to meet these requirements which defers the attainment date to 2010. The 1991 plan shifts the emphasis to reductions in vehicle miles traveled rather than job/housing balance and relies on market incentives to reduce emissions from several stationary sources. All development projects deemed regionally significant should conform to the AQMP. The City of Murrieta is participating in a cooperative regional effort to implement regional and local programs designed to meet federal, state and regional air quality planning requirements. In addition to preparing an Air Quality Element, the City, through the Western Riverside Council of Governments (WRCOG) has also been proceeding with implementation actions to meet the requirements of the AQMP.

The SCAQMD divides air pollutant sources into stationary and mobil sources. These two sources contribute to decreased air quality in Murrieta and the entire South Coast Basin. Stationary sources (industrial facilities, construction sites, automotive services, dry cleaners, etc.) represent only a small portion of the air quality problem in the city while mobile sources (automobiles, trucks, motorcycles, airplanes, trains, etc.) represent by far the largest generator of air pollutants in Murrieta.

Relevant Policies of the Murrieta General Plan

There are 46 policies within the Air Quality Element of the proposed General Plan that addresses Air Quality. These policies are listed below:

- Policy AQ-1.1a:** Continue to work with the WRCOG Air Quality Coordinating Committee to implement regional and local programs designed to meet federal, state and regional air quality planning requirements.
- Policy AQ-1.1b:** Adopt air quality plans and policies consistent with the direction of the South Coast Air Quality Management District's Air Quality Management Plan (AQMP) and the western Riverside County sub-regional Air Quality Implementation Program.
- Policy AQ-1.1c:** Record actions taken to implement the regional Air Quality Management Plan so that periodic implementation reports can be prepared by WRCOG to support expeditious implementation of the AQMP.
- Policy AQ-1.1d:** Work with WRCOG to develop a set of standard mitigation measures to offset project level impacts on air quality.
- Policy AQ-1.1e:** Participate in the preparation of sub-regional, regional or county wide congestion management and growth management plans.
- Policy AQ-1.1f:** Cooperate with surrounding jurisdictions in the preparation and adoption of air quality measures to ensure mutual benefit and not place any jurisdiction at an economic disadvantage.

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- Policy AQ-1.1g:** Involve local citizens, the business community and interested groups and individuals in the adoption of air quality programs.
- Policy AQ-2.1a:** Periodically, review ordinances that influence air quality to determine if changes are necessary based on improved technology and new regulations.
- Policy AQ-2.1b:** Utilize land use and zoning practices, including the siting of development projects, the encouragement of job-site child care facilities, reduced parking requirements to encourage ride sharing, and appropriate land use designations to minimize air quality impacts and protect "sensitive receptors."
- Policy AQ-2.1c:** To the maximum degree feasible, locate "sensitive receptors" (i.e. residences, schools, hospitals, convalescent homes, libraries, churches) away from pollution sources such as freeways, arterial, and other high emitting sources, or buffer sensitive receptors from these uses using landscaping, open space and other separation techniques.
- Policy AQ-2.1d:** Encourage multiple-use development projects that create a pedestrian style living environment and encourage use of mass transit.
- Policy AQ-3.1a:** Cooperate with local, regional, state, and federal agencies to reduce VMT and consequent emissions through job creation.
- Policy AQ-3.1b:** Improve job/housing balance by encouraging the development, expansion and retention of business, with emphasis on small business development.
- Policy AQ-3.1c:** Improve access of businesses to institutions that provide education and job training to prepare local residents to fill the jobs these businesses create.
- Policy AQ-3.1d:** Encourage a mix of housing types, affordable to all segments of the population and near job opportunities to further reduce vehicle trips and VMT.
- Policy AQ-4.1a:** Encourage voluntary programs which would establish trip reduction plans for office, commercial and industrial sites that generate 25 or more employees. Where possible, encourage existing businesses with 25 to 99 employees to establish trip reduction plans.
- Policy AQ-4.1b:** Encourage merchants to provide incentives to customers that shift from single occupancy vehicles to transit, carpools, bicycles, foot or other appropriate modes.

- Policy AQ-4.1c:** Encourage TDM measures which promote biking, ridesharing, telecommuting, and the use of mass transit or other appropriate modes.
- Policy AQ-4.1d:** Promote the use of alternative work weeks and flextime among employers.
- Policy AQ-4.1e:** Encourage the formation of Transportation Management Associations (TMA) for large companies and or groups of companies.
- Policy AQ-4.1f:** Provide potential TMA's with administrative guidelines and technical assistance during formative stages.
- Policy AQ-4.1g:** Cooperate with the Riverside Transit Authority and other mass transit purveyors to improve the area transit system.
- Policy AQ-4.1h:** Encourage operators of major outdoor events to submit a trip reduction plan which applies to both patrons and employees during the course of the event.
- Policy AQ-4.1i:** Encourage new business developments and existing businesses with 25,000 or more square feet of floor area to establish telecommuting centers and work-at-home programs.
- Policy AQ-4.1j:** Cooperate with the trucking industry to reduce peak hour deliveries. Furthermore, reevaluate any restrictions that currently hinder non-peak hour delivery.
- Policy AQ-5.1a:** Ensure compliance with sub-regional, regional or county wide Congestion Management Plans by reviewing development proposals to determine when and where new transportation facilities are needed.
- Policy AQ-5.1b:** Monitor local traffic and congestion to determine when and where new transportation facilities are needed.
- Policy AQ-5.1c:** Cooperate with local, regional, state and federal agencies to achieve better transportation facility planning and development.
- Policy AQ-5.1d:** Participate with WRCOG, SCAG, Riverside County, adjacent counties and Caltrans in the establishment of High Occupancy Vehicle (HOV) lanes on the regional freeway, arterial and highway system.
- Policy AQ-5.1e:** Cooperate with neighboring jurisdictions in assessing the need for park-and-ride facilities along major commuter routes.

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- Policy AQ-5.1f** Cooperate with neighboring counties to establish a mass transit distribution system at commuter destination locations.
- Policy AQ-5.1g:** Manage the roadway system through planning, monitoring, and maintaining uniform street widths and levels of service for highways and intersections.
- Policy: AQ-5.1h:** Synchronize traffic signals to provide a more orderly flow of traffic and reduce congestion.
- Policy AQ-5.1i:** Reduce emissions from local government fleet vehicles by equipping fleet vehicles with enhanced emission controls and purchasing new fleet vehicles which use electricity, methanol, compressed natural gas, or other clean alternative fuels.
- Policy AQ-5.1j:** Cooperate with State, regional, and local agencies to develop peak hour/direction congestion pricing on highly congested travel corridors.
- Policy AQ-6.1a:** Incorporate energy conservation practices to reduce overall energy use within public buildings and facilities.
- Policy AQ-6.1b:** Promote the development of incentives and/or regulations to reduce emissions from residential and commercial water heaters, swimming pools and spas.
- Policy AQ-6.1c:** Encourage the protection of solar access for both existing and new property owners for the use of solar collectors. Support legislation advocating the use of solar energy, and other equivalent technologies that reduce energy use and improve air quality.
- Policy AQ-6.1d:** Promote recycling of wastes and use of recycled materials. Additionally, adopt incentives, regulations and procedures in compliance with Assembly Bill 939 to divert waste from landfills.
- Policy AQ-7.1a:** Adopt incentives, regulations or procedures to reduce particulate matter and fugitive dust emissions from agriculture, construction, demolition, debris hauling, street cleaning, utility maintenance and off-road-vehicles.
- Policy AQ-7.1b:** Adopt incentives, regulations or procedures to reduce particulate matter and fugitive dust emissions from unpaved roads, maneuvering areas, and parking lots.
- Policy AQ-7.1c:** To the degree feasible, eliminate controlled burns during periods of poor air quality.

- Policy AQ-7.1d:** Where appropriate establish controls and construction schedules in the City in an effort to reduce and maintain dust and emissions from grading, construction, and building demolition below South Coast Air Quality Management District threshold levels.
- Policy AQ-7.1e** Encourage agricultural practices that minimize the amount of particulate matter entering the atmosphere.
- Policy AQ-8.1a:** Cooperate with governmental agencies and business interests and support legislation which facilitates the use of innovative ideas and new technology to improve air quality.
- Policy AQ-8.1b:** Where feasible, adopt local ordinances for implementation of new technology that controls emissions and improves air quality as such technology becomes available.

IMPACTS AND MITIGATION MEASURES

Standards of Significance for Criteria Pollutants

According to CEQA, a project would have a significant effect if criteria air pollutant emission levels would cause the exceedance, or expose sensitive receptors to substantial pollutant concentrations. In evaluating individual projects there are primary and secondary federal standards, state standards developed by the California Air Resources Board (CARB), and South Coast Air Quality Management District standards that can be used as thresholds for determining the significance of impacts on air quality. Because this analysis evaluates a policy document (the Murrieta General Plan) rather than a specific project, the standards used to evaluate the significance of impacts will vary from those typically used for individual projects.

For the purposes of evaluating the proposed Murrieta General Plan, impacts on air quality would be considered significant if:

- the City's General Plan conflicts with the goals and policies of the South Coast Air Quality Management Plan, Growth Management Plan and Regional Mobility Plan;
- the policies in the General Plan do not support compliance with the regulations and procedures of the South Coast Air Quality Management District;
- the City's General Plan does not support or provide for compliance with the Riverside County Congestion Management Plan; or,
- General Plan policies do not establish the intent to cooperate with regional, sub-regional and local agencies in cooperative efforts needed to implement programs to meet federal, state and regional air quality planning requirements.

Construction Impact

- 4.9-1 New development in Murrieta that would occur as a result of the proposed General Plan would increase PM₁₀ (fugitive dust), ROC, NO_x, and CO emissions as a result of construction related activities. This is a *short-term significant impact*.

Construction activities associated with the proposed General Plan would temporarily increase PM₁₀, ROC, NO_x and CO concentrations in the project vicinity. The primary source of construction-related ROC and NO_x emissions are gasoline and diesel-powered heavy duty mobile construction equipment such as scrapers and motor graders. Primary sources of PM₁₀ emissions would be clearing activities, excavation and grading operations, construction vehicle traffic on unpaved ground, and wind blowing over exposed earth surfaces. Emissions generated from construction activities occurring under the proposed General Plan would probably cause temporary increases in pollutant concentrations which could lead to violations of the federal and state maximum concentration standards. The frequency and concentrations of such violations would depend on several factors including the soil composition on the site, the amount of soil disturbed, wind speed, the number and type of machinery used, the construction schedule, and the proximity of other construction and demolition projects. Given all of these variables, it is not possible to make an accurate quantitative estimation of the pollutant concentrations that could occur over the life of the proposed General Plan. However, a rough, "worst case" estimate can be calculated based on the SCAQMD Screening Table for Estimating Total Construction Emissions (SCAQMD CEQA Handbook Table 9-1). Table 9-1 provides emission factors by land use (in pounds per day) for each criteria pollutant. Using Table 9-1, total construction emissions were estimated by multiplying the amount of vacant land in each land use category by the corresponding emission factor and dividing by the estimated number of construction days. Assuming that all 14,300 acres of vacant land within the study area would be graded and converted to other uses during the seventeen year period of the General Plan, the average daily emissions would be approximately 1.4 tpd (tons per day) for PM₁₀¹, 1.3 tpd, 19.7 tpd, and 4.3 tpd for ROC, NO_x, and CO respectively. (See Table 4.9-1)

Based on these estimates emissions associated with short-term construction activities could potentially exceed SCAQMD significance thresholds for project operations. It should be noted however, that this method assumes that the General Plan is one large development project that will be under construction for seventeen years. Therefore, the resulting emissions are estimates of total cumulative emissions and are not representative of individual project emissions. Daily emissions for individual projects would actually be less given the smaller size and shorter construction phase. More detailed project specific analysis demonstrating compliance with regional air quality regulations will be required as development occurs.

**TABLE 4.9-1
CONSTRUCTION EMISSIONS**

	Emissions (lbs/day)			
	ROC	NO _x	CO	PM ₁₀
Single Family	1357	19,951	4,338	1,417
Apartments	57.95	851.6	185.2	60.48
Commercial	424.1	6,233	1,355	442.6
Industrial	431.5	6,340	1,379	450.3
Parks	407.6	5,989	1,302	425.3
Total (lbs/day)	2,679	39,367	8,560	2,795
Total (tons/day)	1.34	19.68	4.28	1.40

Source: EIP Associates, July 1993. Emissions calculated using SCAQMD CEQA Handbook, April 1993. Screening Table 9-1

Mitigation Measure

4.9-1 *Implement policies AQ-7.1a, AQ-7.1b, AQ-7.1d and AQ-2.1b would reduce this impact. These policies would reduce air quality impacts from construction by utilizing land use and zoning practices and construction scheduling to reduce dust emissions. The policies also require adoption of incentives, regulations or procedures to reduce particulate matter and fugitive dust from construction related activities.*

On a project-by-project basis, SCACMD thresholds could still be exceeded, however the potential impacts of General Plan implementation are considered to be reduced to a less-than-significant level through implementation of the comprehensive policies included in the City's proposed Air Quality Element.

Impact

4.9-2 **Traffic generated by new development allowed under the General Plan could cause fifty-four intersections in the City of Murrieta to exceed SCAQMD standards for localized one-hour and eight-hour CO concentrations. This is a *potentially significant impact*.**

Overall carbon monoxide (CO) levels at intersections can be approximated by adding background CO levels to the CO emissions generated by traffic. In order to determine overall CO levels in the year 2010, it is necessary to estimate future background levels and future traffic levels as explained below.

Background CO Levels

Ambient background levels are the CO levels that are recorded at local air quality monitoring stations. These stations record levels of CO emitted by all the sources in the station vicinity. If there is not a monitoring station near the project site, background levels are obtained from the air quality monitoring

station that is closest to the project site and that is most representative of the study area.² Once the nearest representative station is identified, future background levels for that station can be estimated. Future ambient CO levels are estimated by the SCAQMD and can be found for select monitoring stations in the SCAQMD CEQA Handbook. (Table 5-3)

For the purpose of this analysis, the Riverside Magnolia Street (Riverside Mag.) Station was determined to be the nearest representative monitoring location for which future ambient CO levels are estimated. The SCAQMD provides estimated CO concentrations for the years 1993-2000 only. Year 2000 background CO concentration levels for Riverside Mag. are projected to be 8.9 parts per million (ppm) and 5.0 ppm for one-hour and eight-hour concentrations, respectively.³ In order to obtain data for the proposed plan buildout year (2010), it is necessary to extrapolate from the SCAQMD figures for the years 1993-2000.⁴ The SCAQMD bases its estimates on future CO levels on the assumption that new technology such as cleaner burning fuel and alternate fuel vehicles will result in the gradual lowering of background CO levels. The SCAQMD CO estimates for 1993-2000 follow a straight line graph. Extrapolating from this straight line graph yields values of 3.5 ppm and 2.0 ppm for one-hour and eight-hour concentrations for the year 2010 in the Riverside Mag. area.

Local CO Levels

Emissions generated by traffic flowing through a specific intersection can be estimated using a screening table published by the SCAQMD (Table 4.9-2). Table 4.9-2 provides one-hour CO concentrations for freeways, arterial and local roadways based on the type of roadway and the level of service. Once the one-hour concentration is obtained, the eight-hour concentration can be calculated by multiplying the one-hour level by the appropriate persistence factor. The persistence factor varies from area to area and is dependent on the area's recorded CO levels. The persistence factor is basically the ratio of the study area's eight-hour CO concentration level to the one-hour CO concentration level. It is determined using data on the maximum one and eight-hour CO concentration levels for the past three years from the nearest monitoring station. Data from the Temecula monitoring station (the nearest station with CO data from the past three years) indicates that the appropriate persistence factor for the Murrieta area is 0.8.

According to Table 4.9-2, any intersection of two arterial streets with a level of service of C or above (see Section 4.9, Traffic and Circulation, for a description of roadway levels of service) will generate a one-hour concentration of at least 21.6 ppm. Multiplying 21.6 ppm by 0.8 yields a value of 17.0 ppm. Both of these one-hour and eight-hour values exceed the state standards of 20.0 ppm and 9.0 ppm, even before addition of background levels. Data generated by the traffic analysis for this project indicates that if the General Plan is implemented, fifty-four intersections within the city and sphere of influence of Murrieta have the potential of providing levels of service below rating C. Given the above information and the fact that all intersections involve or will involve, under the General Plan, two arterial roadways, each of the fifty-four intersections identified in the traffic study has the potential of exceeding state one and eight-hour CO standards.

TABLE 4.9-2
ESTIMATED CO CONCENTRATIONS FROM ARTERIAL ROADWAYS

Level of Service	Capacity/Speed	Distance From Stop Line	1-Hour Concentration at 49 feet from edge of roadway (ppm)
C	6,375/20	879.25	10.8
D	6,750/15	931.75	12.5
E	7,125/10	980.96	17.5
FO	8,051/10	1,108.91	23.2

Source: SCAQMD CEQA Handbook, April 1993, Table 5-4.

It should be noted that Table 4.9-2 is based on 1992 data and is representative of 1992 technology. It is likely that emissions will decrease in the future as technology improves and policies and programs for improving air quality are put in place. The data presented here is meant to approximate a worse case scenario in which technology does not improve in the next seventeen years, and emissions in the year 2010 will be similar to today.

Mitigation Measure

4.9-3 *Implementation of General Plan policies AQ-1.1d and e, AQ-2.1d, AQ-3.1a and d, AQ-4.1, and AQ-5.1a which provide for mitigation of project level impacts, participation in regional Congestion Management Plans, and measures to reduce Vehicle Miles Traveled will reduce this impact to a less-than-significant level.*

Impact

4.9-3 **Increases of criteria air pollutant emissions associated with vehicular traffic and electricity and natural gas use would degrade regional air quality, potentially delaying attainment of AQMP and AQIP. This is a *significant impact*.**

Implementation of the General Plan would cause operational increases in pollutant emissions due to increases in vehicular traffic and increases in energy consumption as described below.

The General Plan would cause increases in vehicular traffic which would result in increased pollutant emissions. Table 4.9-3 illustrates the CO, ROC and NO_x impacts due to traffic for the General Plan. As shown in Table 4.9-3, it is estimated that vehicular emissions in Murrieta will account for approximately one percent of the SCAB NO_x emissions, one-half percent of ROC emissions, and almost two percent of CO emissions in the year 2009. The data presented in Table 4.9-3 is a worst case estimate and does not account for implementation of proposed General Plan policies and programs that will reduce Vehicle Miles Traveled.

TABLE 4.9-3
DAILY VEHICULAR EMISSIONS YEAR 2009⁵
(TONS/DAY)

	CO	ROC	NO _x	PM _{10ex}	PM _{10ttr}
Proposed Plan	76.58	5.38	10.46	0.31	1.43
South Coast Air Basin (SCAB)⁶	4,471	1,130	1,018	Not available	Not available
Project Percent of SCAB	1.7%	0.48%	1.0%		

Source: EIP Associates, July 1993. Emissions calculated using SCAQMD CEQA Handbook, April 1993, tables A9-5-G, A9-5-J-10, A11-5-H-10, A11-5-H-2, A9-5-j-2, A9-5-M-2, A9-5-N-1 through A9-5-N-3.

New development would lead to operational impacts due to increased demands on energy. Consumption of fossil fuels to provide electrical and heating/cooling services for new projects would increase air emissions from regional power plants. Emissions from electrical energy and gas consumption that would result from implementation of the General Plan were estimated using SCAQMD CEQA Handbook Tables A9-11 and A9-12.⁷ These tables provide electricity and natural gas usage rates for various land uses and emission factors for consumption of electricity and natural gas. Using these tables, it is possible to arrive at a rough estimate of the amount of CO, ROC, NO_x, SO_x and PM₁₀ emissions that would be generated due to electricity and natural gas consumption. This estimate is based on the assumption of total buildout of the General Plan and does not assume potential benefits associated with improvements in technology or implementation of energy conservation measures supported by conservation and Open Space Element policies. Table 4.9-4 shows the combined emissions from electricity and natural gas usage for the buildout City in the year 2010. Projects occurring in Murrieta will be evaluated on a project specific level to ensure that operational emissions remain below project-significance levels.

The above operational emissions estimated for growth under the proposed Murrieta General Plan would result in incremental impacts on regional air quality that could work against attainment of AQMP and SIP goals, if the policies and programs in the General Plan Air Quality, circulation and Land Use Elements are not implemented.

Mitigation Measure

4.9-3 *Implementation of Air Quality Element Policies AQ-1.1 through AQ-8.1 would reduce this impact to a less-than-significant level and assist in the attainment of regional goals for air quality.*

While growth within the City will contribute to incremental increases in air pollution in the City, the General Plan includes a comprehensive set of policies and programs that are intended to reduce air pollution and provide for compliance with the AQMP, GMP, CMP and SIP. Recognizing that the above referenced General Plan policies provide for compliance with regional plans and programs aimed at improving air quality, impacts on air quality with implementation of these policies are considered less-than-significant.

**TABLE 4.9-4
OPERATIONAL EMISSIONS FROM ELECTRICAL ENERGY
AND NATURAL GAS CONSUMPTION**

	Area	Unit	CO (lbs/day)	ROC (lbs/day)	NO _x (lbs/day)	SO _x (lbs/day)	PM ₁₀ (lbs/day)
Electrical Consumption							
Residential	48,671	du	150.1	7.50	862.8	90.0	30.0
Commercial	15,351,000	sq.ft.	112.9	5.64	649.4	67.8	22.6
Industrial	21,684,000	sq.ft.	124.8	6.24	717.4	74.85	24.9
Sub-Total			387.7	19.38	2229	232.6	77.5
Natural Gas Consumption							
Residential	48,671	du	201.6	53.4	806.2	0	2.02
Commercial	15,351,000	sq.ft.	27.38	7.25	164.3	0	0.274
Industrial	21,684,000	sq.ft.	NA	NA	NA	NA	NA
Sub-Total			228.9	60.7	970.5	0	2.29
Combined Total			616.7	80.1	3200	232.6	77.5

Source: EIP Associates, July 1993. Emissions calculated using SCAQMD CEQA Handbook, April 1993, Tables A9-11 and A9-12.

ENDNOTES

1. Implementation of dust control requirements (SCAQMD Rule 403) such as water or other soil stabilizers, could reduce PM_{10} emissions by as much as 50 percent, from 1.4 tpd to .7 tpd. PM_{10} would still exceed the SCAQMD significance threshold of 150 pounds per day (ppd).
2. Sometimes the closest station will not have data that reflects the project site because of differences in geology and topography.
3. SCAQMD handbook. Tables 5-2 and 5-3. Projected Future Year 1-Hour and 8-Hour CO Concentrations, p. 5-15, 5-16. In the absence of data for Murrieta and Temecula, Riverside Mag. levels were used in this analysis.
4. Per telephone conversation with Melody Gillette, Air Quality Specialist at SCAQMD, July 1993.
5. Estimated vehicular emissions include passenger cars, trucks, busses and motorcycles.
6. Regional emissions taken from AQMP Appendix No. 111-13, May 1989.
7. SCAQMD CEQA Handbook, April 1993, Table A9-11-A Electricity Usage Rate. Table A9-11-B Emission Factors for Each Criteria Pollutant from Consumption of Energy. p. A9-114. Table A9-12-A Natural Gas Usage Rate, Table A9-12-B Emission Factors for Each Criteria Pollutant from Consumption of Natural Gas. P. A9-117.

NOISE

The noise environment for Murrieta can be described using noise contours developed for the major noise sources within the City. Existing noise contours for the City have been estimated based on the Federal Highway Administration (FHA) Highway Noise Model and existing traffic volumes provided by Kahn and Kain Associates. The noise contours are used to identify areas of existing or potential noise impacts. CNEL contour levels of 60dB, 65dB, and 70dB are shown in Figure 4.10-1. Any existing or proposed noise sensitive land uses to be located within exterior CNEL contours of 60 dB or greater should be considered for noise mitigation programs. Residential developments in these areas should be carefully reviewed to ensure that proper mitigation is included in projects in order to meet California Sound Transmission Control Standards (CAC, Title 24) for maximum interior noise levels of 45 dB.

Relevant Policies of the Murrieta General Plan

There are 23 policies within the Noise Element of the Murrieta General Plan. These policies are summarized below:

- Policy N-1.1a:** Control noise at its source through the use of insulation, earth berms, building design/orientation, setbacks, staggered operating hours, and other techniques to ensure that noise levels do not exceed the limits established in the Noise and Land Use Compatibility Guidelines and the City noise ordinance.
- Policy N-1.1b:** Limit the hours of construction activity in residential areas to reduce intrusive noise in early morning and evening hours and on weekends and holidays.
- Policy N-1.1c:** Protect the noise environment in existing residential areas by requiring mitigation measures for commercial, industrial or other proposed developments which would exceed the noise level standards set forth in the Noise and Land Use Compatibility Guidelines as measured at any affected land use.
- Policy N-1.1d:** Protect schools, hospitals, libraries, churches, convalescent homes, and other noise sensitive uses from noise levels exceeding those allowed in residential areas.
- Policy N-1.1e:** Locate noise sensitive uses away from excessive sources of noise unless mitigation measures are included in development plans which reduce noise to acceptable levels.
- Policy N-1.1f:** New residential development should be discouraged where the ambient noise level due to commercial or industrial sources exceeds the noise level standards set forth in the Noise and Land Use Compatibility Guidelines and the City noise ordinance.
- Policy N-1.1g:** If residential uses are constructed where ambient noise levels fall within the "normally unacceptable" range, as designated by the Noise and Land Use Compatibility Guidelines, this information shall be disclosed to all prospective residents and property owners.

4.10 NOISE

INTRODUCTION

This section identifies the existing noise environment in the City of Murrieta and evaluates potential noise impacts due to implementation of the proposed Murrieta General Plan. Mitigation measures designed to minimize potential impacts are provided as necessary to reduce significant impacts to a less-than-significant level.

The following discussion is summarized from the City of Murrieta Master Environmental Assessment (MEA) which provides an expanded discussion of existing noise conditions in the City. The Noise Section of the MEA is hereby incorporated by reference.

SETTING

In order to limit human exposure to physically and/or psychologically damaging noise levels, the State of California, through the State General Plan Guidelines (Government Code Section 65302 (f)) requires that cities include a noise element in their general plans. Consistent with this requirement, various county governments and most municipalities have established standards and ordinances to control noise.

Maximum noise levels for new residential development are established by the California State Building Code (Title 21) which sets 65 CNEL as the appropriate exterior residential criteria and 45 CNEL as the appropriate residential interior noise level criteria. The City of Murrieta does not currently have a noise element or accompanying noise standards, however, Riverside County standards are consistent with the State specifying 65 CNEL as an exterior residential standard, and 45 CNEL as an interior residential standard.

The predominant noise source in Murrieta General Plan area originates from motor vehicle traffic along Interstate 15 (I-15) and Interstate 215 (I-215). However, the General Plan area is also minimally affected by noise associated with two local airports; the small privately owned Bear Creek Airport, located in the City and the French Valley (Rancho California) Airport, located outside of the City's sphere of influence approximately 2 miles southeast of the City limits in the unincorporated area of Riverside County. Murrieta is also affected to a lesser extent by short-term noise sources, such as construction activities, and by stationary noise primarily associated with industrial facilities.



- Policy N-2.1f:** Work closely with the Airport Land Use Commission and other involved agencies in the development and review of planning and environmental studies associated with any expansion or change in flight patterns at French Valley Airport.
- Policy N-2.1g:** Monitor activity at the French Valley Airport to ensure that existing and proposed land uses in the City and sphere of influence remain within the Airport Land Use Guidelines for Noise Compatibility.
- Policy N-3.1a:** Require a construction-related noise mitigation plan for projects adjacent to developed/occupied noise sensitive land uses. Such plan should show the location of construction equipment and how noise from this equipment will be mitigated by such methods as:
- Temporary noise attenuation barriers
 - Preferential location of equipment
 - Use of current technology and noise suppression equipment.
- Policy N-3.1b:** Address noise impacts during environmental review for discretionary projects to ensure that noise sources meet City Noise Ordinance standards.

IMPACTS AND MITIGATION MEASURES

This section addresses potential impacts associated with implementation of the Murrieta General Plan. Mitigation measures are designed to minimize potential impacts that could occur due to new policies or development occurring under the proposed General Plan.

Standards of Significance

Based on Appendices G and I of the CEQA Guidelines, noise impacts associated with the proposed Murrieta General Plan would be considered significant if one or more of the following conditions would result from implementation of the proposed Plan:

- Substantial increases in ambient noise levels (3 dBA or more) in areas that would impact sensitive receptors, including residential uses, hospitals, schools, and libraries;
- Generation of noise that would conflict with the City noise ordinance;
- Creation of noise levels which are incompatible with designated land uses.

An evaluation of the significance of impacts in relation to these criteria is provided below. The impacts are reflective of the nature of the proposed plan which calls for significant land use changes. The City's rural character will significantly change as a result of the increased growth allowed under the proposed

General Plan. Growth occurring under the plan would increase traffic patterns and volumes along City roadways thus increasing noise levels. Furthermore, it is assumed that new development will cause construction noise impacts and possibly result in incompatible noise level/land use relationships.

Impact

4.10-1 The General Plan would substantially increase traffic-generated noise at various locations in the City. This is a *significant impact*.

As depicted in Table 4.10.1, calculations based on the FHWA Highway Traffic Noise Prediction Model revealed that buildout of the proposed General Plan would significantly increase (3dBA or more) vehicular noise as compared to existing conditions at all analyzed locations. Since the existing roadside noise levels are already in the conditionally acceptable dBA range for most sensitive land uses (i.e. single family and multi-family residences, schools, churches, libraries, hospitals, etc.) any noise level increase would be considered significant. In evaluating these projected noise levels it is important to consider that the levels shown reflect noise exposure at 50 feet from the roadway centerline. It should also be noted that as the distance from the centerline increases noise levels decrease at a rate of approximately 6 dBA per doubling of distance. Therefore, at 100 feet noise levels would be about 6 dBA less than reported, and at 200 feet, they would be 12 dBA less. If appropriate design, setbacks and mitigation is not provided, residential and other sensitive land uses adjacent to these roadways could be exposed to noise levels that exceed the common standards of 45 dBA for interior residential, and 65 dBA for exterior residential areas. The mitigation measures that follow should be adhered to in order to minimize all impacts.

Mitigation Measure

4.10-1 Implementation of Noise Element policies N-1.1a, N-1.1c through N-1.2e, N-2.1a through N-2.1g, and N-3.1b would reduce noise impacts to less-than-significant levels. These policies would reduce noise impacts through the use of various noise attenuation techniques, modified construction schedules, and zoning procedures.

Impact

4.10-2 New development allowed under the General Plan would increase construction activities in the City. This increase would result in an increase in noise impacts during the construction phase. This is a *significant short-term impact*.

The General Plan would allow an increase in development city-wide. This increased development would be expected to significantly increase construction activity. As presented in Table 4.10-2, construction activities typically generate very high noise levels. Even with properly damped equipment and compliance with regulations on hours of construction activity, construction would result in significant short-term impacts.

TABLE 4.10-1
VEHICULAR TRAFFIC NOISE LEVELS AT BUILDOUT

Roadway Segment	Peak Hour Noise Level (dBA) ¹		Δ dBA
	Existing Conditions	Proposed General Plan	
I-15 (between)			
Clinton Keith Rd./Kalmia St.	79	84	5
Kalmia St. (California Oaks Rd.)/Hawthorne St. (Murrieta Hot Springs Rd.)	79	84	5
Hawthorne St. (Murrieta Hot Springs Rd.)/I-215 (Junction)	79	84	5
Jefferson Ave. (between)			
Nutmeg St./Hawthorne St.	66	71	5
Hawthorne St./Rancon Cent. Blvd.	66	72	6
Adams Ave.	61	71	10
Washington Ave. (between)			
City Limits/Clinton Keith Rd.	65	75	10
Clinton Keith Rd./Magnolia	65	74	9
Magnolia/Guava St.	64	75	11
Guava St./Rancon Center Blvd.	63	74	11
Clinton Keith Rd. (between)			
I-15/California Oaks Rd.	66	75	9
California Oaks/I-215	65	76	11
I-215/Antelope Rd.	63	77	14
Nutmeg St. (between)			
Jefferson Ave./Clinton Keith Rd.	62	71	9
California Oaks Rd. (between)			
I-15/Falconer Dr.	70	75	5
Falconer Dr./Clinton Keith Rd.	65	73	8
Kalmia St. (between)			
I-15/City Limits	68	72	4

TABLE 4.10-1 (continued)

Roadway Segment	Peak Hour Noise Level (dBA) ¹		ΔdBA
	Existing Conditions	Proposed General Plan	
St. (between)			
5/Vashington			
5/I-215	66	73	7
Alamos Rd. (between)	69	76	7
15/Whitewood Rd.			
Wood Rd./City Limits	68	75	7
Wthorne St. (between)	64	73	9
Washington Ave.			
/Hancock Ave.	65	73	8
k Ave./I-215	67	74	7
rieta Hot Springs Rd. (between)	67	75	8
5/City Limits			
(between)	72	76	4
er Rd./Clinton Keith Rd.			
Keith Rd./Los Alamos Rd.	77	84	7
Alamos Rd./Murrieta Hot Springs Rd.	77	84	7
Hot Springs Rd./I-15 Junction	78	84	6
ope Rd. (between)	78	82	4
Keith Rd./City Limits			
n Keith Rd./Los Alamos	63	70	7
d Rd. (between)	-	71	-
Alamos Rd./Murrieta Hot Springs Rd.			
a Hot Springs Rd./I-215	63	70	7
ur Noise Level (dBA) @ 50 feet from centerline of roadway	-	69	-

Robert Kahn, John Kain & Associates, Inc. 1992 Traffic Summaries; FHWA Highway Traffic Noise Prediction Model,
Department of Transportation, Dec. 1978

TABLE 4.10-2
TYPICAL CONSTRUCTION NOISE LEVELS AT 50 FEET (dBA)

Construction Phase	Commercial/Industrial Construction Average Noise Level	Housing Construction Average Noise Level
Ground Cleaning	84	84
Excavation	89	88
Pile Driving	101	101
Foundations	78	81
Erection	85	82
Finishing	89	88

Source: Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, prepared by Bolt, Beranek, and Newman for the U.S. Environmental Protection Agency, December 31, 1971, p.20.

Mitigation Measure

4.10-2 *Implementation of Noise Element policies N-1.1b and N-3.1a, which list such methods as: Temporary noise attenuation barriers; Preferential location of equipment; and Use of current technology and noise suppression equipment, would reduce short-term impacts from construction to less-than-significant levels.*

Impact

4.10-3 **The General Plan would allow changes in existing land use patterns. This change may create incompatible noise/land use relationships for existing and new developments. This is a *potentially significant impact*.**

Shifts in land use patterns, from residential to commercial, or, from low/medium density residential to higher density residential, may cause land use incompatibilities. As a result, some areas could experience excessive noise level increases. The following proposed General Plan policies must be followed in order to avoid significant impacts.

Mitigation Measure

4.10-3 *Implementation of Noise Element policies N-1.1a through N-1.2c, N-2.1a through N-2.1g and N-3.1b as summarized in this section would reduce this impact to a less-than-significant level.*

HEALTH AND SAFETY (RISK OF UPSET)

4.11 HEALTH AND SAFETY (Risk of Upset)

INTRODUCTION

This section provides a qualitative discussion of the risks to human health and safety which could result from the implementation of the City of Murrieta General Plan. Specifically addressed are potential risks associated with hazardous materials, wildland and urban fires, and aircraft hazards. In addition, the section also focuses on emergency preparedness in Murrieta. Additional health and safety related topics, including geology, hydrology, air quality, and noise are discussed in separate sections of the EIR.

Information on existing conditions in this section is summarized from the City of Murrieta Master Environmental Assessment (MEA) Noise Section. The Public Safety Section of the Murrieta MEA is hereby incorporated by reference.

SETTING

The undeveloped hillside areas in and adjacent to the City present a potentially serious hazard due to the high potential for large scale wildland fires. The threat is particularly significant during dry summer months and when there are strong Santa Ana winds. Wildland fire protection for the City of Murrieta is the primary responsibility of the Murrieta Fire Protection District (MFPD) with assistance from the California Department of Forestry (CDF) provided under a special agreement for fire protection of wildlands. There are 5,722 acres of land within the study area that are considered as having high potential for wildland fires. Most of these areas are undeveloped or are developed with primarily low density residential uses. In the event of a major wildland fire, other resources would be brought into the City as needed as part of the statewide emergency management system. No significant unusual urban fire hazards have been identified within the General Plan area.

There are 24 businesses in the City that incorporate hazardous materials into their production or service processes and 27 businesses that generate hazardous waste. The majority of these businesses include automotive services, dry cleaners, photoprocessing, medical services, printing, and lithography. Potential hazards associated with hazardous materials include fires, explosions and leaks. Based on a comprehensive records search performed at the state and county level 35 sites were identified as having contamination associated with underground tanks which store petroleum products, and one site was identified as having lead contaminated soil. The EPA has installed an asphalt cap on the site with the lead contaminated soil to protect the public from exposure. In the event of a hazardous materials incident within the General Plan area, the MFPD would initially respond with further assistance provided by the CDF Hazardous Materials Response Team and the County Health Department.

French Valley Airport, located approximately 2 miles outside the City's sphere of influence, is a source of potential hazard to people and property within the study area. The French Valley Airport Influence Area extends into the extreme southwest area of the City and covers a large area within the City's sphere of influence. With the exception of concentrated residential development off of Via Princessa within the Murrieta Hot Springs Specific Plan, and a residential development north of Hunter Road and west of Highway 79, the majority of the airport influence area is vacant or occupied by a few rural residences.

The main document guiding development within the Airport Influence Area is the French Valley Airport Land Use Plan (FVALUP). The FVALUP and related land use regulations assume an airport upgrade to accommodate more multi-engine general aviation aircraft and business jets, with an estimated 112,000 flights per year and an average of 425 operations per day. In order to ensure public safety relative to airport operations, the following safety zones, as recommended by the state, have been included in the French Valley Airport Land Use Plan (FVALUP); the Inner Safety Zone (ISO), the Outer Safety Zone (OSZ), Emergency Touchdown Zone (ETZ), the Traffic Pattern Zone (TPZ), and the Extended Runway Centerline Zone. Areas of safety concern within the study area are limited to the ETZ (approximately 8 acres in the sphere of influence), the OSZ (19 acres), and the TPZ. The first two zones fall within the proposed Borel Airpark Center Specific Plan. Wider areas fall within the least restrictive Traffic Pattern Zone. Regulations within these zones focus on prohibited land uses, and land use restrictions such as height limits, and dwelling unit density. For a full description of these zones and land use regulations related to French Valley Airport please refer to the City of Murrieta MEA Public Safety Section.

The main document addressing emergency preparedness in the City is referred to as the Multi-Hazard Functional Plan (MHFP). The MHFP outlines specific response protocol for extraordinary emergency situations associated with natural or human caused disasters, technological incidents, and nuclear defense operations. The document includes the City as part of the county and statewide emergency management system. The document is intended to be read and understood by members of the City's Incident Command System before an emergency. The adequacy and maintenance of this document is essential to ensure adequate response and preparedness in the event of a major emergency.

Relevant Policies of the Murrieta General Plan

There are 28 policies within the Public Safety Element of the Murrieta General Plan addressing public health and safety issues. These policies are briefly described below:

Policy S-6.1a: In cooperation with the Murrieta Fire Protection District maintain and if necessary strengthen review of projects and development proposals, and upgrade fire prevention standards and mitigation measures in areas of high fire hazard, and throughout the City.

- Policy S-6.1c:** Any development proposed within wildland fire hazard areas should be reviewed by the Murrieta Fire Protection District for compliance with the District's Fuel Modification Plan.
- Policy S-6.1d:** As part of the development review process ensure that water main capabilities are adequate to meet fire flow requirements for residential and commercial/industrial areas as set forth by the Murrieta Fire Protection District.
- Policy S-6.1e:** In cooperation with the Murrieta Fire Protection District strive to achieve a five-minute, or less, response time for fire and medical emergencies, ninety percent of the time, to all areas within the City.
- Policy S-6.1f:** In cooperation with the Murrieta Fire Protection District strive to achieve a minimum staffing ratio of 1.5 career-uniform fire fighters per 1,000 population.
- Policy S-6.1g:** In cooperation with the Murrieta Fire Protection District, strive to achieve one engine company for each 3,500 dwelling units and for each 3.5 million square feet of commercial or industrial occupancy.
- Policy S-6.1h:** Require all streets, roads, alleys, and other public ways, to be identified by name with a standard sign distinctly marked and clearly visible.
- Policy S-6.1i:** Maintain current, accurate, and consistent address mapping and posting for all structures in the City. Ensure street names are not duplicated and are unique to distinguish from others in City. Discourage the use of complex and difficult to pronounce street names.
- Policy S-6.1j:** In cooperation with the Murrieta Fire Protection District and the school districts serving the City, encourage and assist the districts in fire education programs using displays and demonstrations of the more involved aspects of fire safety (i.e. major contributing factors to fire hazard and the relationship of fire to human safety).
- Policy S-6.1k:** Continue efforts to reduce fire hazards associated with older buildings, multi-family housing, and fire-prone industrial facilities throughout the City.
- Policy S-6.1l:** In cooperation with the Murrieta Fire Protection District, continue to coordinate fire protection services with the Riverside County Fire Department, California Department of Forestry and all other agencies and districts with fire protection powers.

4.11 Health and Safety (Risk of Upset)

- Policy S-6.1m:** In cooperation with the Murrieta Fire Protection District ensure all property in the City and successive uses of individual buildings comply with the latest edition of the Uniform Fire Code and other applicable building and fire standards.
- Policy S-6.1n:** As new development occurs, ensure that outlying areas of the Plan Area can be served by fire communication systems. As necessary, provide for the construction of radio towers (repeater sites) to allow for adequate radio communication.
- Policy S-8.1a:** Support and expand existing emergency preparedness and disaster response programs, and initiate a program for post-disaster planning.
- Policy S-8.1b:** In cooperation with the Murrieta Fire Protection District, continue to update the Multi-Functional Hazard Plan for the City of Murrieta on a regular basis.
- Policy S-8.1c:** Continue to enhance emergency preparedness and awareness of public safety hazards through community education and self-help programs.
- Policy S-8.1d:** In cooperation with the Murrieta Fire Protection District continue to actively participate in Operational Area (Riverside County) Mutual Aid Region, and local planning, training, and coordinating exercises.
- Policy S-9.1a:** Periodically evaluate existing land uses for compatibility with the French Valley Airport Land Use Plan.
- Policy S-9.1b:** Projects in the City shall comply with the most recent Land Use Compatibility Guidelines for French Valley Airport.
- Policy S-9.1c:** Height restrictions within the airport influence area should be set consistent with City standards and the Federal Aviation Regulations, Part 77.
- Policy S-10.1a:** No specified hazardous waste facility shall be located within 200 feet of an active fault.
- Policy S-10.1b:** Review proposed development projects involving the use, storage and disposal of hazardous materials with the intent of minimizing the magnitude and probability of a hazardous event.
- Policy S-10.1c:** Assist in establishing and maintaining a team of Murrieta Fire Protection District firefighters trained for first level hazardous materials response and a vehicle properly equipped with protective clothing and material to initiate preliminary action and assist

an advanced response team from a County-wide joint powers team or from the County of Riverside.

- Policy S-10.1d:** Land uses involved in the production, storage, transportation, handling, or disposal of hazardous materials will be located a safe distance from land uses that may be adversely impacted by such uses.
- Policy S-10.1e:** Incorporate by reference the relevant portions of County Hazardous Waste Management Plan.
- Policy S-10.2a:** Adopt a Household Hazardous Waste Element and implement appropriate programs consistent with the Public Resources Code.
- Policy S-10.3a:** Specified hazardous waste facilities shall use routes that can safely accommodate additional truck traffic, do not pass through residential areas, and use interstate or state divided highways as major routes.
- Policy S-10.3b:** In cooperation with the County Environmental Health Services Department, Murrieta Fire Protection District and City Building and Safety Division require new businesses to submit detailed information regarding the amounts and types of hazardous materials used and hazardous waste generated, the business procedures used to manage these substances, and emergency procedures in place to handle an accident.

IMPACTS AND MITIGATION MEASURES

Methodology

The impact analysis evaluates potential impacts associated with the proposed Murrieta General Plan. The evaluation was based on field monitoring and research, and existing literature provided by Riverside County and the City of Murrieta.

Standards of Significance

Impacts on Public Health and Safety are considered significant if one or more of the following conditions would result from implementation of the proposed project:

- Creation of a public health and safety hazard through release or emission of hazardous materials.
- Production or disposal of hazardous materials.
- Exposure of sensitive receptors to substantial concentrations of pollutants.
- Exposure of the public to high accident potential associated with an airport.

4.11 Health and Safety (Risk of Upset)

Evaluation of the significance of impacts in relation to this criteria is provided in the following discussion.

Impact

- 4.11-1 **Future development allowed under the proposed General Plan may expose residents to hazardous materials being transported or used in adjacent industrial and commercial operations. This is considered a *significant impact*.**

Industrial activities can involve the use of numerous hazardous substances. An accident at an industrial facility resulting in the release of a toxic substance poses a risk of upset to inhabitants of the City. Implementation of the proposed district plan would result in an increase in the production and use of hazardous materials with new commercial and industrial development. Additionally, growth allowed under the plan would increase the population at risk as a result of a hazardous materials incident. Implementation of the following mitigation measures would reduce this impact to a *less-than-significant level*.

Mitigation Measure

- 4.11-1 *Implement proposed policies S-10.1a through S-10.3b which provide for coordination with the Riverside County Health Department in the management and regulation of hazardous substances, and, control of transportation routes for hazardous materials through the City. These and other policies in the proposed Safety Element of the Murrieta General Plan would reduce this impact to a less-than-significant level.*

Impact

- 4.11-2 **Development as proposed under the Plan would increase the demand for emergency services. This is a *potentially significant impact*.**

Increased development would increase the potential need for emergency response services. Please refer to Section 4.7, Public Services for further discussion of impacts related to emergency response services.

Mitigation Measure

- 4.11-2 *Implementation of proposed policies S-8.1a through S-8.1d, specifying continued updates to the City of Murrieta Multi-Functional Hazard Plan and expansion of emergency preparedness and disaster response programs reduce this impact to a less-than-significant level.*

Impact

- 4.11-3 **Future development within the study area could expose residents to serious hazards due to the high potential for large scale wildland fires. This is considered a *significant impact*.**

Approximately 5,722 acres of land within the study area have been identified by the Murrieta Fire Protection District (MFPD) and the California Department of Forestry (CDF) as having high potential for

wildland fires. The areas are confined primarily within the undeveloped hillside areas located along the western edge of the City boundary, directly adjacent to the 215 freeway north to Baxter Road. There are some low density residential uses in these areas and future development allowed under the proposed plan would intensify residential development in areas with high fire hazard. Development should be monitored carefully in these areas to ensure adequate protection from wildland fires. Implementation of the following mitigation measures should reduce this impact to a *less-than significant level*.

Mitigation Measures

- 4.11-3 *Implementation of proposed policies S-6.1d through S-6.1n which specify maintenance and strengthening of review procedures for high fire hazard areas and other relevant requirements related to fire protection and prevention reduce this impact to a less-than-significant level.*

Impact

- 4.11-4 **Future development within the study area could be subject to potential crash hazards associated with French Valley Airport operations. This is a *potentially significant impact*.**

The French Valley Airport is located approximately two miles outside of the study area. Future Airport expansion plans could double annual flight activities and substantially increase daily operations by the year 2000¹. There are six approved Specific Plans (Alta Murrieta (SP 103), Warm Springs (SP 220), Murrieta Hot Springs (SP 103), Winchester Mesa (SP 103), and Dutch Village (SP 106) located within the Airport Influence Area, which extends into the extreme southeast portion of the General Plan area. Once developed these areas could be subjected to increased flight hazards associated with Airport operations. While the proposed Land Use Plan for the Murrieta General Plan is consistent with the FVALUP, future development within the area should be monitored closely.

Mitigation Measures

- 4.11-4 *Implementation of proposed policies S-9.1a through S-9.1c and S-8.1a through S-8.1d stressing compliance with the FVALUP would reduce this impact to a less-than-significant level.*

ENDNOTES

1. French Valley Airport Comprehensive Land Use Plan, 1990 Forecast of Aircraft Operations, Page 2-6, Aries Consultants, August 4, 1992.

AESTHETICS / VIEWS

SECTION 4.12

south, and the San Jacinto ranges to the east. Elevations in the General Plan area range from approximately 1,030 feet above mean sea level (+1,030 msl) in the valley to about +2,120 feet msl along the ridgelines in the northern portion of the General Plan area, and to about +1,620 msl along the steep hillsides of Slaughterhouse Canyon in the extreme western portion of the General Plan area. In addition to the surrounding hillsides and mountains, Murrieta and Warm Springs Creeks and a number of tributaries course through the City in a southwesterly direction.

The majority of vegetative cover in the City has been introduced by past agricultural practices and more recent residential and commercial development. As a result, developed areas of the City are characterized by landscapes that are mostly comprised of non-native ornamental plants. Despite the alteration of much of the City's native plant communities, significant areas of chaparral and riparian scrub and forest still remain. These areas of native vegetation contribute to the visual quality of the General Plan area's hillsides and creek corridors. The largest concentrations of native vegetation are found in the foothills and canyons in the extreme western portion of the City, along the slopes and base of the Hogbacks, in the northeastern hillsides of the General Plan area, and along portions of Warm Springs Creek, and to a lesser extent Murrieta Creek. In addition to these concentrations of native vegetation, stands and single specimens of large oak trees remain scattered throughout the General Plan area.

Murrieta's long history of occupation is evidenced by remnant structures, roadways, and historic landmarks which remain in the older sections of the General Plan area. The most significant historic areas of the City are along Washington Avenue (west of I-15), and Los Alamos Road (east of I-215). These historic areas, in combination with portions of the City devoted to horsekeeping and agriculture contribute to the City's remaining rural character. Newer residential and commercial development in the City is generally concentrated east of the I-15 freeway, with older lower density areas remaining for the most part west of I-15 and to the east along Los Alamos Road.

Existing Views

From vantage points in the northwest foothills of the City there are expansive long-range views of the Temecula Valley to the southeast (Photo A, Figure 4.12-2). These views are enhanced by the ridgelines of the Santa Ana Mountains that extend to the south, and by the more distant mountain ranges to the south and east.

From most of the General Plan area west of the Hogbacks and along the I-15 and I-215 freeways, there are exceptional views of the Santa Rosa Plateau and the relatively undisturbed ridgelines that extend to the north and south (Photo B, Figure 4.12-2). These western hillsides are the most dominant feature contributing to the scenic quality of the City. While the City limits do not extend beyond the lower foothills of the Santa Ana Mountains (+1,600 feet), the limited residential development that does occur on these foothills is visually prominent. Where grading has taken place and natural vegetation has been cleared upslope from homes it has created a strong line of contrast between the altered and unaltered hillsides (Photo C, Figure 4.12-3).

4.12 AESTHETICS/VIEWS

INTRODUCTION

This section of the Draft EIR evaluates the visual quality of the City of Murrieta and its sphere of influence and assesses the potential for visual impacts with implementation of the proposed General Plan.

Difficulties arise when evaluating visual quality and the degree of impact resulting from visual change. This is because few objectives or quantitative standards exist to analyze visual quality and individuals respond differently to changes in the visual environment. What may be considered to be an adverse visual condition to one person, may represent an improved visual scene to another.

For most people, the perception of visual quality is created by the impressions formed when viewing a place from one or more vantage points. With this in mind, a visual survey was conducted to assess the visual resources of the City, and to evaluate the quality of views from public vantage points and circulation routes. Methodology for the following analysis is based on information gathered during a field reconnaissance and photographic survey, combined with the use of aerial photographs and other data maps.

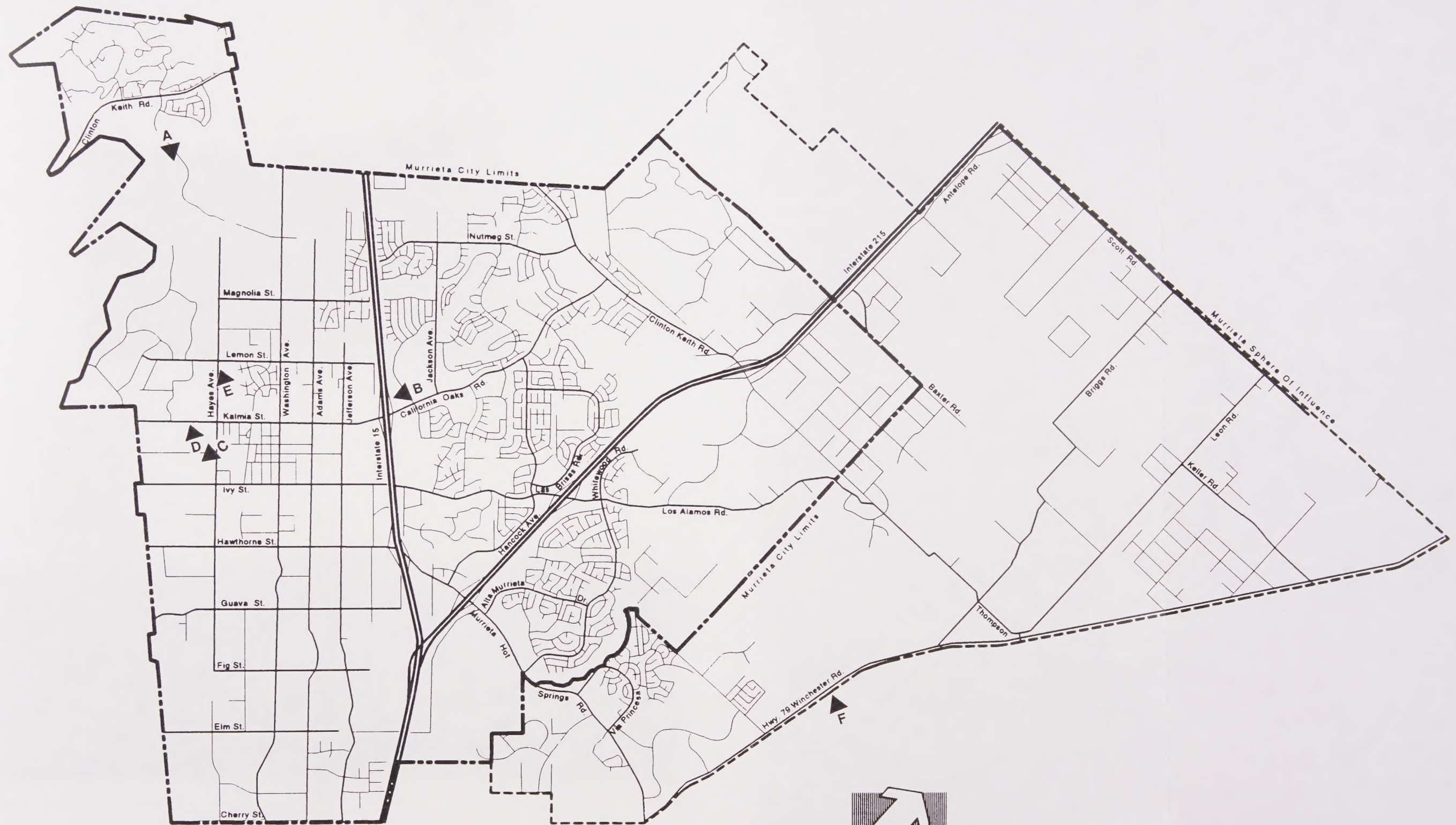
The setting information provided in this section has been summarized from the City of Murrieta Master Environmental Assessment (MEA). The Aesthetics/Views section of the MEA is hereby incorporated by reference.

SETTING

Visual Character

On a regional level, growth in Murrieta is an extension of development that has accelerated in recent years along the corridor provided by the I-15 freeway. Developed areas north of the City in the Menifee Valley are physically separated from Murrieta by intervening ridge lines, hillsides, and undeveloped land. The City of Temecula located immediately to the south extends the developed area of the Temecula/Murrieta Valley south to the San Diego County line.

The visual character of the City of Murrieta is defined to a large extent by the physical geography of the area. Murrieta is located in the Temecula/Murrieta Valley region and is surrounded by rolling hillsides and steep mountain slopes. The Santa Rosa Plateau and Santa Ana Mountains located immediately to the west are the most dominant and significant visual features contributing to the City's scenic quality. Other mountain ranges that are visible from the City include the Santa Margarita and Agua Tibia ranges to the



CITY OF MURRIETA

MASTER ENVIRONMENTAL ASSESSMENT

PHOTO KEY MAP

FIGURE 4.12-1

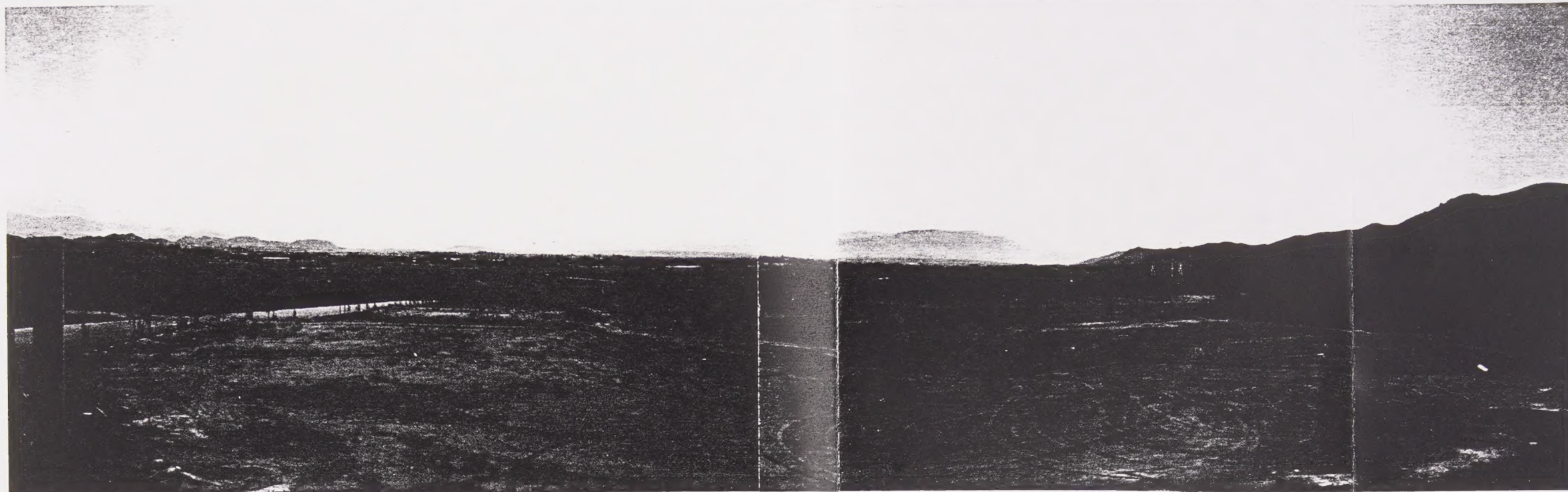


Photo A: View from the northwestern portion of the city to the southeast. The Santa Ana Mountains ridgeline is to the west and the Agua Tibia and Santa Margarita ranges are to the south.



Photo B: View to the west of the Santa Rosa Plateau and Santa Ana Mountain ridgeline taken from Rancho California Road.

CITY OF MURRIETA

GENERAL PLAN ENVIRONMENTAL IMPACT REPORT

STUDY AREA PHOTOS

FIGURE 4.12-2

The canyons and oak woodlands in this area are also considered significant visual resources. In addition to the canyons and hillsides that lead to the Santa Rosa Plateau in the far western portion of the City, much of the area west of Washington Avenue is also highly scenic. The area is characterized by low rolling hillsides, horse ranches, tree groves and open fields. The rural character of this area, combined with the mountain backdrop, provide scenic views along the corridor established by Hayes Avenue (Photo D, Figure 4.12-3).

In the northern portion of the City and within its sphere of influence west of Interstate 215, there are a number of undisturbed hillsides and ridgelines with elevations ranging from +1,600 feet msl to +2,000 feet msl. The combination of undeveloped hillsides, canyons, drainages, and oak woodlands in this area, and its high visibility from Interstate 215 and areas to the north and south, make it an area of high scenic value.

Although much of Murrieta Creek has been channelized or seriously eroded, the creek, and its areas of riparian vegetation, are a scenic resource with significant potential for restoration and enhancement (Photo E, Figure 4.12-4). Warm Springs Creek, which meanders through the eastern portion of the City, is much less disturbed and also contributes to the scenic quality of the City.

The Hogbacks, a prominent ridgeline that traverses the eastern portion of the General Plan area, is a distinct visual feature (Photo F). Although some ridge top development has occurred along the Hogbacks, much of the western slope and the base of the slope where it meets Warm Springs Creek remains relatively undisturbed with a high concentration of natural vegetation. The corridor established by Los Alamos Road is another scenic corridor. Views along the country road are characterized by low density residential development, rolling hillsides, unique rock outcroppings, and groves of eucalyptus and olive trees.

Scenic Highways

The Scenic Highway Program was established by state legislation (Senate Bill 1467) in 1963 to help communities protect and enhance their natural and cultural uniqueness and beauty. It is encoded in the Streets and Highways Code (Division 1, Chapter 2, Article 2.5., Section 263). One of the required steps to receive official designation is to prepare a scenic corridor protection program consisting of policies in the local general plan and implementing ordinances. The minimum requirements for a protection program are:

- a. Adoption of land use/intensity classifications.
- b. Establishment of a design review authority and defined regulations for project review.
- c. Control of outdoor advertising.
- d. Attention to and control of grading, including landscape requirements.
- e. Design and appearance of structures and equipment.
- f. Preparation of program in cooperation with local citizen committees, affected property owners, environmental groups, etc.



Photo C: View west from Murrieta Creek. A strong line of contrast exists where brush clearance and grading for new homes has taken place.



Photo D: View to the north along Hayes Avenue. This scenic corridor along Hayes Avenue shows the rural character of the western portion of the city.

CITY OF MURRIETA

GENERAL PLAN
ENVIRONMENTAL IMPACT REPORT

STUDY AREA PHOTOS

FIGURE 4.12-3



Photo E: View west along a relatively undisturbed section of Murrieta Creek.



Photo F: View of the Hogbacks from the eastern edge of the study area.

CITY OF MURRIETA

GENERAL PLAN
ENVIRONMENTAL IMPACT REPORT

STUDY AREA PHOTOS

FIGURE 4.12-4

Interstate 15 is included in the Master Plan of State Highways Eligible for Official Highway Designation. The City would need to process a submittal through Caltrans for finalization of the Official State Highways Designation.

Interstate 215 is currently shown on the County's Master Plan of Scenic Highways as being eligible for official designation as a County Scenic Highway. The City would need to process a submittal through the county for finalization of the Official County Scenic Highways Designation.

In May of 1992, the Murrieta City Council directed staff to pursue necessary action for designating Interstate 215 as a scenic highway. Staff has since recommended that legislative assistance be secured to add Interstate 215 to the Master Plan of State Highways Eligible for Official Designation, and that the state designation process be initiated for both Highways. Staff also recommends that the county designation process be initiated for Interstate 215.

In addition to the scenic value of Interstate 15 and Interstate 215, the historic value of Los Alamos Road has also been formally recognized by the Murrieta City Council. Furthermore, in March of 1992, the Riverside County Historical Commission, as advisory commission to the Riverside County Board of Supervisors, recommended to the Board that a four-mile stretch of Los Alamos Road, between Via Santee and Winchester Road, be designated as a county historic route. The road has been a link in various historic trail systems through Native American, Spanish-Mexican (mission-rancho), American settlement and farming periods.

State Route 79 (Winchester Road) is also listed in the Riverside County Comprehensive General Plan as an Eligible County Scenic Highway.

Relevant Policies of the Murrieta General Plan

There are numerous policies within the Conservation and Open Space Element and Land Use Element that relate to visual resources and aesthetics. Due to the large number of General Plan policies addressing visual quality issues they are not all listed under this heading. In the following section on Impacts and Mitigation Measures, specific policies will be referenced when they relate to an identified impact.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

CEQA defines a significant adverse visual impact as one which has a substantial and demonstrable negative aesthetic effect. For the purposes of this EIR, a significant adverse impact would occur when a project results in:

- Substantial obstruction of scenic views;
- Degradation of scenic views from important public gathering places;
- Obstruction or alteration of views from a designated scenic highway or heavily traveled roadway;
- Substantial alteration of unique environmental or man-made visual features;
- Development that does not conform with a jurisdiction's design guidelines or policies; or
- Development that is out of scale or character with a distinct neighborhood or district;

Unless otherwise noted, all impacts are considered to be significant adverse impacts. Corresponding mitigation measures, unless otherwise noted, would be sufficient to reduce impacts to less-than-significant levels.

Impact

- 4.12-1 **New development occurring under the proposed General Plan will replace natural open space and vacant land altering views and potentially degrading the visual quality of the City. This is a *significant impact*.**

Currently over 50 percent of the General Plan area's 28,644 acres is vacant or designated as open space. Under the proposed General Plan much of this land (over 11,000 acres) would be converted to built uses and over 600 acres would be developed for recreational use. This acreage includes vacant lands disturbed by human use and a significant amount of undeveloped natural open space. Given the undeveloped nature and scenic quality of much of the General Plan area, the potential for degradation of unique and scenic natural features will be the focus of this discussion. In the City these features include natural hillsides, ridgelines, knolls, unimproved creek channels, and concentrations of oak trees and riparian vegetation.

Significant hillsides within the City and sphere of influence are concentrated in three areas: the northcentral portion of the General Plan area, on and around the Hogbacks, and along northwestern City boundary. With much of the General Plan areas hillsides undeveloped, there is potential for degradation of views due to major alterations of landform from grading, and from post construction impacts due to development that does not integrate well with the surrounding hillside environment.

The hillsides in the northcentral portion of the General Plan area are designated Master Plan Overlay with gross densities ranging from 0.4 dwelling units per acre (du/ac) to a maximum density of 5 du/ac. The

Master Plan Overlay designation has been used in areas of the City with large properties or unique characteristics or circumstances that require more detailed planning for residential development. The designation applies to projects between 10 to 200 acres and allows clustering of dwelling units with the base designation of the site controlling overall gross density. Projects over 200 acres require a specific plan. In areas with sensitive hillsides, creeks, or sensitive habitat, "clustering of residential units in more developable areas is required."

The Master Plan Overlay designation's provisions for clustering, and Conservation and Open Spaces Element Policies for Landform Protection and Preservation of Significant Slopes, are the primary General Plan provisions for protecting hillsides. The most important and specific policies focus on preserving slopes equal to or exceeding 50 percent, applying conservation standards to minimize grading in areas of slopes equal to or exceeding 25 percent, and, the proposed development of hillside management guidelines.

Despite these General Plan policy provisions, and until guidelines and conservation standards are developed and "significant topographic features" are identified for preservation, there could be significant impacts on hillsides. Without effective hillside management guidelines, development consistent with the General Plan could occur in areas with steep and highly visible slopes in the 25 to 50 percent range. Given the difficulty of objectively evaluating the potential effects of grading without specific regulations or guidelines in place, grading and development in these areas could irreparably damage significant ridgelines and hills causing significant visual impacts. It is possible that where projects within the Master Plan Overlay designation are located on sites constrained by topography, that the total unit yield based on the underlying designations gross density could be highly concentrated in areas of the site with slopes in the 25 to 50 percent range. Even with sensitive grading practices high density clustered development within this slope range could result in significant impacts. Although there is a General Plan policy (Policy COS-3.1e) that specifies controlling "....development on prominent ridgelines and hillsides to maintain the visual integrity of the landform..." and reducing negative aesthetic impacts, and a policy (Policy COS-3.1g) aimed at preserving unique topographic features and ridgelines, those features warranting preservation are not identified and if they have slopes of less than 50 percent they could be degraded or eliminated by future development.

Nearly all of the "Hogbacks", (a major topographic feature in the eastern General Plan area) are designated "Equestrian Residential" with a maximum density of 0.4 du/ac. and a minimum lot size of 2.5 acres. In addition to the General Plan provisions for protecting hillside areas discussed above, the Hogbacks are also addressed in Land Use Element Policy LU-4.2c. The policy states that "...the "Hogbacks" be preserved to the greatest extent possible...", and that "Grading of the "Hogbacks" for residential pads is prohibited." The policy does state that "Where residential development can be approved, hillside development techniques should be used....". While the intent of the policy seems to be to preserve the Hogbacks to the greatest extent possible, it is not clear where residential development is prohibited and where "residential development can be approved". Without knowing specifically where residential development might be allowed it is assumed that significant impacts to the Hogbacks could occur due to hillside development.

Hillside areas in the extreme northwestern portion of the City would fall under the General Plan designations of "Open Space", "Recreation/Parks", and "Single-Family Residential" with a maximum density of 5 du/ac. Further south along the City boundary are gently sloping areas with high visibility that are designated "Equestrian Residential" with a maximum density of 0.4 du/ac. Both of these areas located along the base of the Santa Rosa Plateau are considered visually sensitive due to: their visual prominence in the western portion of the City, their location within a scenic rural/equestrian area, and their direct adjacency with an extensive area of natural open space. As a result, they could be significantly impacted by grading for construction, agriculture, or brush clearance, and by hillside development. In addition to grading and development impacts, construction of fencing and landscaping with plants and groundcovers that present a strong contrast with adjacent hillside open space could also result in significant impacts.

Creeks, primarily Warm Springs and Murrieta, are proposed in the General Plan as "Open Space". Numerous policies in the General Plan call for the preservation of creeks as natural, scenic, and recreational corridors which respect wildlife and habitat and recognize the need for flood control. In addition to Murrieta and Warm Springs Creek, Cole Creek, located in the western portion of the General Plan area, is also specifically called out for preservation. Unlike Warm Springs and Murrieta Creeks, much of Cole Creek is designated for "Recreation/Parks". Perhaps the most significant of the policies addressing creeks is Conservation and Open Space Element Policy COS-1.21 which calls for the City to coordinate with interested agencies and pursue preservation and improvement design guidelines for significant creek areas. Based on the land use designations given to the major creeks within the General Plan area, and the numerous policies in the General Plan supporting their preservation, no significant impacts on creeks are anticipated.

With buildout under the General Plan there is potential for aesthetic impacts due to construction of buildings that are out of character or scale with existing development. This is primarily a concern where commercial and industrial uses are located adjacent to residential neighborhoods, where commercial development is visible from the freeway, and where development takes place within historic districts. An aspect of the proposed General Plan essential to the preservation and protection of scenic resources within urbanized portions of the General Plan area will be implementation of Land Use Element policies for the establishment of special districts with district specific design guidelines. In combination with these policies, proposed policies relating to buffering of residential uses, signage, landscaping, and design review, are considered adequate to eliminate the potential for significant impacts associated with architectural and land use compatibility.

In summary, potential visual impacts on creek corridors or those resulting from development out of scale or character with a historic building, distinct neighborhood or district are considered less than significant. Visual impacts determined as significant focus on the potential for damage to significant ridgelines and hillsides due to grading and post-grading development, particularly in highly visible areas with slopes in the 25 to 50 percent range. To reduce significant impacts due to hillside grading and development the following mitigation measures or policies are suggested:

Mitigation Measures

- 4.12-1(a) *The City shall conduct a study to identify and map significant ridgelines, knolls, canyons and other topographic features that warrant preservation.*
- 4.12-1(b) *Include a policy in the Conservation and Open Space Elements replacing or modifying policy COS-3.2c that states that the City shall designate a Hillside Overlay Zone or District and adopt an ordinance or guidelines to regulate development and grading in hillside areas. At a minimum the ordinance/guidelines shall provide grading, landscape, and building regulations and special review procedures, as well as identifying areas for preservation.*
- 4.12-1(c) *Until the time that guidelines, ordinances and plans are developed to protect hillsides, ridgelines, creeks, historic districts and scenic highways or roadways, interim procedures shall be put in place to ensure that proposals potentially affecting these areas are thoroughly reviewed and conditioned to eliminate significant impacts.*

While not suggested as mitigation, it is recommended that the City consider whether a 50 percent slope cut-off point for development will be adequate to protect the City's prominent hillsides and ridgelines.

LIGHT AND GLARE

SECTION 4.13

4.13 LIGHT AND GLARE

INTRODUCTION

This section of the Draft EIR evaluates current conditions in the study area and the potential for new development under the proposed general plan to result in excessive light and glare. Information in this section on existing conditions is summarized from the City of Murrieta Master Environmental Assessment (MEA). The MEA Light and Glare Section is hereby incorporated by reference.

As a result of development, intrusive light and glare often occur in the vicinity of a project. There are primarily two sources of light intrusion: 1) light emanating from the interior of a structure and passing through windows, and 2) light from exterior sources, such as building illumination, security lighting, and lighting around courtyards, plazas and walkways. Glare mainly results from sunlight reflection off flat building surfaces, with glass typically contributing to the highest degree of reflectivity. Light intrusion can be a nuisance in residential areas and a deterrent to wildlife in urban fringe areas. Glare can be an unpleasant distraction and a potential hazard, interfering with motorists' vision and concentration.

SETTING

Light

The major sources of light in the City are primarily associated with buildings, recreational facilities, parking lots, and street lights. Lighting is most concentrated in the more developed central area of the City. Lighting sources quickly drop off in the rural and hillside areas to the east and west of the City.

There are three sensitive light receptors affected by lighting in the City: residential development, wildlife, and the Mount Palomar Observatory. Residential development is often sensitive to lighting from roadways and other land uses, particularly multi-story commercial development, parking lots, and recreational areas. Where developed areas border natural habitat, lighting can disturb or act as a deterrent to wildlife. This is particularly significant in areas of the City that function as wildlife corridors, because lighting could discourage wildlife hunting and movement.

Another sensitive light receptor is the Mount Palomar Observatory, which is located approximately 25 miles to the southeast of the project site. The observatory, which has been in operation since the 1930's is run by the California Institute of Technology. Light emissions from street, safety and other lighting sources, depending on the level of multispectrum wave energy produced, can cause interference with telescope operations. Light sources that produce too many wavelengths of energy cannot be adequately

filtered by the telescope and can severely compromise the efficiency of the observatory, as has occurred in the Los Angeles area with the Mount Wilson Observatory and the Griffith Park Observatory.

In response to these concerns, Riverside County, the City of San Diego, and a number of other jurisdictions have adopted outdoor lighting ordinances to restrict undesirable light rays which could have a detrimental effect on astronomical observation and research. Riverside County Ordinance No. 655 has been in effect since July 7, 1988. The ordinance applies standards for lamp type, shielding, and time of operation based on the designated class of lighting for different sensitivity zones. Sensitivity zones are based on the distance by radius from the observatory. Zone A includes the area within a fifteen (15) mile radius of the Palomar Observatory. Zone B extends from the edge of Zone A to a total distance of forty-five miles from the observatory. The entire area of the City of Murrieta is located within Zone B. Restrictions in the ordinance are based on the described sensitivity zones and the following three classes of lighting:

- Class I Lighting -** All outdoor lighting used for, but not limited to, outdoor sales or eating areas, assembly or repair areas, outdoor advertising displays and other signs, recreational facilities and other similar applications when color rendition is important.
- Class II Lighting -** All outdoor lighting used for but not limited to, illumination of walkways, private roadways and streets, equipment yards, parking lot and outdoor security.
- Class III Lighting -** Lighting not needed for Class I or Class II purposes and used for decorative effects for the illumination of flag poles, trees, fountains, statuary, and building walls.

In general, the ordinance prohibits all Class I lighting in Zones A and B from operation between 11:00 p.m. and sunrise (with some exceptions), and prohibits other than low pressure sodium street lights on private roadways and streets within the same zones. Lighting installed prior to July 7, 1988 is exempt, except when reconstructed and replaced.¹

Glare

Glare results from sunlight reflection off flat building surfaces. Glass typically contributes to the highest degree of reflectivity. Glare can be an unpleasant distraction and a potential hazard, interfering with motorists' vision and concentration. Glare can also be obtrusive and an annoyance in hillside areas where it can degrade scenic views. As there are no large high-rise buildings and few other structures in the City which are constructed with highly reflective materials, few problems exist. However, as new development occurs, glare could become a problem if appropriate consideration is not given to the choice of building materials.

Relevant Policies of the Murrieta General Plan

The following summarizes specific policies in the General Plan that serve to directly or indirectly reduce the potential for light and glare impacts in the City.

Land Use Element Policies

Policy LU-1.2i: All commercial activities will be buffered from residential uses. Setbacks, landscaping, berms, screening walls or other techniques will be used to transition from commercial to residential uses.

Policy LU-1.8c: Project landscaping shall enhance the design quality of the development, contribute to community character, and adequately provide such necessary functions as erosion control, visual screening, habitat, buffering, and climate control. All landscaping shall comply with the City's Water Conservation Ordinance.

Policy LU-3.4a: The City shall strive to ensure compatible land use interface at the City's boundaries.

Conservation and Open Space Policy

Policy COS2.2b: Establish adequate buffer areas between sensitive habitats and development. Provide adequate setbacks to protect riparian habitats from roads and structures. Periodically review minimum riparian area setbacks to determine if setback distances are effective and revise if necessary.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purposes of this project and consistent with CEQA standards, light and glare effects would generally be considered to have a significant adverse effect on the environment if:

- Increases light and glare and presents a nuisance to motorists, occupants of residential units, or operators of aircraft.
- Light and glare presents a deterrent to wildlife in adjacent areas of natural habitat.
- Lighting in the City would adversely impact the Mount Palomar Observatory or be contrary to the standards set forth in Riverside County Ordinance No. 655

Impact

4.13-1 Development occurring under the proposed General Plan would increase light and glare in the City. This is a *significant impact*.

4.13 Light and Glare

With new development in the area, light emissions from street, safety, recreation and other lighting sources would increase with the potential to adversely effect sensitive receptors. Of particular significance are potential impacts that could reduce the capabilities of the Mount Palomar Observatory, and, impacts associated with new development where light spill could disturb and deter wildlife from using natural areas.

Glare from the new development may result from sunlight reflecting off flat building surfaces, with glass potentially contributing the highest degree of reflectivity. If minimally reflective glass is not used on buildings, glare may create unpleasant distractions, and may be a hazard, potentially interfering with motorists' vision and concentration, especially along major arterials.

The City of Murrieta currently implements the requirements provided by Riverside County Ordinance No. 655 which effectively eliminates the potential for significant light impacts on the Mount Palomar Observatory. Other policies provided in the proposed General Plan as cited below offset potential impacts on wildlife habitat areas and sensitive residential land uses.

Mitigation Measure

- 4.13-1 *Land Use and Conservation and Open Space Element policies summarized in this section and compliance with the ordinance established for the Mount Palomar Observatory reduce impacts due to light and glare to a less-than-significant level.*

ENDNOTES

1. Ordinance No. 655 of the County of Riverside Regulating Light Pollution, adopted June 7, 1988.

CULTURAL RESOURCES

SECTION 4.14

4.14 CULTURAL RESOURCES

INTRODUCTION

This section assesses potential impacts on archaeological, paleontological, and historic resources that could occur with development projected under the proposed Murrieta General Plan. The analysis is based on cultural resources record search conducted by the University of Riverside, Department of Anthropology, Eastern Information Center on July 29, 1992, and on a paleontological resources report prepared by the San Bernardino County Museum Earth Sciences Division on September 2, 1992.

The following discussion is summarized from the City of Murrieta Master Environmental Assessment (MEA). For an expanded discussion of existing conditions related to archaeological, paleontological and historic resources refer to the Cultural Resources Section in Chapter 3 of the MEA. The Cultural Resources Section of the MEA is hereby incorporated by reference.

SETTING

The MEA study area has a high concentration of archaeological, and historical resources and a potentially high concentration of paleontological resources. There are 53 archaeological sites (within the boundaries of the City of Murrieta), and 65 sites known within one mile of the City limits that are recorded in the California Archaeological Inventory.¹ With reliable water sources and fertile land, the Murrieta area has always been a reliable place to live, and it is not unusual for a single archaeological site to contain evidence of occupation from the prehistoric through the historic period. Proper identification of cultural resources is mandated by state law and is primarily initiated through the conformance procedures of CEQA. Under CEQA, an archaeological survey should be required for a project if cultural resources are identified as potentially significant during environmental review. A sound approach to making a determination of significance is essential to ensure protection of these resources. In addition to archaeological sites, the Riverside County Historic Resources Inventory lists 72 properties in the City eligible for listing as historic places and landmarks.

The Murrieta area is underlain almost exclusively by highly fossiliferous rock units such as the Pauba formation and the Unnamed Sandstone formation. Formations in the Murrieta area have yielded a remarkable array of fossil vertebrates which include mammoth, mastodon, ground sloth, dire wolf, shortfaced bear, saber-toothed cat, tapir, camel, llama, and pronghorn. Deposits have also yielded smaller vertebrate fossils which contribute significant information toward deciphering the temporal constraints under which sediments were deposited.² A significant portion of the study area has been classified by the San Bernardino County Museum Earth Sciences Division as having high potential for containing

significant, nonrenewable paleontologic resources. Consistent with the CEQA Guidelines, and the recommendations of the Society of Vertebrate Paleontology, development proposals within the study area must be evaluated as part of the environmental review process to determine the paleontological sensitivity of a given site. Project sites within areas of the City designated or known to have high paleontologic sensitivity should be required to complete a standard paleontologic resource mitigation program. Such a program would include monitoring and salvage of fossils during excavation, recovery and identification of specimens, and curation of specimens into a museum repository with retrievable storage.

Relevant Policies of the Murrieta General Plan

There are numerous policies within the Conservation and Open Space Element of the Murrieta General Plan that address the cultural resource issues identified in the following discussion of environmental impacts and mitigation measures. These policies are briefly summarized below:

- | | |
|------------------------|---|
| Policy COS-5.2a | Produce, adopt and update a Historic Resources Inventory. A comprehensive survey of historic resources within the General Plan Area, conducted in conformance with State survey standards and guidelines, shall provide the basis for the inventory. |
| Policy COS-5.2b | Promote the designation of eligible resources to the National Register of Historic Places, the State Landmarks Program, the State Point of Historic Interest Program, County Landmarks Program, and the National Register of Historic Districts. |
| Policy COS-5.2c | To the extent feasible, preserve historically and architecturally significant sites, structures, and landscape features throughout the community and encourage appropriate adaptive reuse of historic structures and sites in order to prevent disuse, disrepair, and demolition. |
| Policy COS-5.2d | Adopt a Historic and Scenic Preservation Ordinance that provides for the preservation of historic resources within the General Plan Area. The ordinance shall permit the alteration, demolition, and/or moving of historic structures and features after the issuance of a Certificate of Appropriateness and/or a Certificate of Hardship. |
| Policy COS-5.2e | Establish a Murrieta historic and Scenic Preservation Commission whose responsibilities shall be defined in the City Historic and Scenic Preservation Ordinance. |
| Policy COS-5.2g | Adopt plans to preserve the Historic Downtown District and the Los Alamos area. Identify characteristic features and develop guidelines for infill development. Equestrian, bicycle, shuttle van, and pedestrian access shall be encouraged. |

- Policy COS-5.2j** Recognize the importance of Native American resources to our understanding of the past and ensure the identification and protection of these resources within the City of Murrieta. Inform and educate the citizens of Murrieta regarding the identification and preservation of Native American resources in their community.
- Policy COS-5.2l** To protect significant cultural resources in the City, the Planning Department should, as part of the environmental review process, forward descriptions of proposed projects to the Eastern Information Center (EIC) at U. C. Riverside for an assessment to determine resource significance and the need for any mitigation (i.e. surveying, testing, data recovery, or monitoring).
- Policy COS-5.2m** In order to protect paleontologic resources in the City, projects located within the High Sensitivity area shown on the Paleontologic Sensitivity Map would involve grading of previously undisturbed parcels (i.e. no excavation or trenching) should be required to prepare and complete a standard paleontologic resource mitigation program. For projects located within the area designated Undetermined Sensitivity a field survey conducted by a qualified paleontologist should be required to determine if resources would be impacted by excavation. If the potential for impacts on paleontologic resources exists, a standard paleontologic resource mitigation program would be prepared and completed.
- Policy COS-5.2n** In the event that any archaeological or paleontologic resources are discovered during site excavation or construction, all activities affecting the site shall cease, and the contractor shall contact the City Planning Department. The Planning Department shall follow environmental review procedures to determine significance of the resources and appropriate mitigation measures.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

In accordance with Appendix K of the CEQA Guidelines, a project will have a significant impact on the cultural resources if it:

- Disrupts, alters, or adversely affects a prehistoric archaeological site or a property of historic or cultural significance to a community or ethnic or social group; or a paleontological site except as a part of a scientific study;
- Results in direct adverse impacts (e.g., ground-disturbance and construction activities) or indirect adverse impacts to cultural resources (e.g., vandalism, increased erosion, or vibration during heavy grading);

4.14 Cultural Resources

- Results in adverse aesthetic effects to a prehistoric or historic building, structure, or object;
- Affects a landmark of local cultural/historical importance; or
- Restricts existing religious or sacred uses within the potential impact area.

Evaluation of the significance of impacts in relation to this criteria is provided in the following discussion.

Historic Impact

- 4.14-1 **Future development occurring under the proposed General Plan has the potential to adversely affect historic sites and structures in the General Plan Study Area. This is a *significant impact*.**

The National Register of Historic Places suggest that areas in excess of forty-five years of age should be evaluated for inclusion in the National Register of Historic Places. Because the Riverside County Historic Inventory lists 72 structures or sites in the City which may be of historic significance, there is the potential that future development could damage or destroy historic resources as a result of construction activity.

Historic Mitigation Measure

- 4.14-1 *Implementation of Conservation and Open Space Element Policies COS-5.2a through e, and g, pertaining to preservation of historic sites would reduce this impact to a less-than-significant impact.*

Archaeological Impact

- 4.14-2 **Development occurring under the proposed General Plan has the potential to disturb archaeological resources. This is a *significant impact*.**

Archaeological studies and other information documented by the Eastern Information Center makes it clear that much of the City has a high degree of cultural resource sensitivity with varied and valuable resources. As a result, there is a high probability that significant archaeological artifacts could be damaged or destroyed as a result of grading and soil disturbing activities if appropriate procedures for protecting these resources are not followed.

Archaeological Mitigation Measure

- 4.14-2 *Implementation of Conservation and Open Space Element Policies COS-5.2j, COS-5.2l, and COS-5.2n providing procedures for protection of archaeological resources through the environmental review process, would reduce this impact to a less-than-significant level.*

Paleontological Impact

- 4.14-3 **Development occurring under the proposed General Plan could result in disturbance or destruction of paleontologic resources. This is a *significant impact*.**

Due to the highly fossiliferous formations underlying much of the Study Area future grading activities could uncover and damage significant paleontologic resources during grading and construction for new projects. Under CEQA an action adversely affecting paleontological resources is considered significant, and as a result mitigation of this impact is required.

- 4.14-3 *Implementation of Conservation and Open Space Element Policy COS-5.2m, and COS-5.2n specifying the need for mitigation programs for projects involving grading in High and Undetermined Sensitivity areas (as shown in the MEA), would reduce this impact to a less-than-significant level.*

ENDNOTES

1. Cultural Resources Records Search, Eastern Information Center, University of California Riverside, July 29, 1992.
2. Paleontologic Resources Report for the City of Murrieta, San Bernardino County Museum, Earth Sciences Division, September 3, 1992.

5. CEQA CONSIDERATIONS

5.1 GROWTH-INDUCING EFFECTS

The California Environmental Quality Act (CEQA) Guidelines require a discussion of the ways in which a proposed action could be growth-inducing. CEQA identifies a project to be growth-inducing if it extends urban services into a previously unserved or underserved area; extends a major transportation corridor into a previously unserved or underserved area; or removes a major obstacle to development and growth. Secondary or indirect growth generally relates to retail and other service employment related to new development activity. New employees from commercial development and new population from residential development represent direct forms of growth. These growth increments expand the size of local markets for labor or retail and spending and induce additional economic activity in the area to capitalize on the direct growth. Growth may also be induced by lowering or removing infrastructural barriers to growth, improving transportation access to an area, or by creating an amenity such as a recreation facility that attracts new population or economic activity.

Typically, the growth-inducing potential of a project would be considered a significant growth-inducing impact if it fostered growth or a concentration of population, or created capacity to accommodate growth above and beyond what was permitted by the relevant plans or contained in growth projections of independent regional planning agencies. However, the creation of growth-inducing potential does not automatically lead to growth, whether it would be below or above a projected level. Growth at the local level is regulated by the land use policies of local governments in California, but growth can only happen through capital investment in new economic opportunities by the private or public sectors (predominantly the former). Development pressures are created by the desires of investors to mobilize their resources in a particular region or locality. These pressures help to structure the local politics or growth and the local jurisdiction's posture on growth management and land use policy. The growth-inducing potential or pressure created by a project is therefore mediated by the locality itself.

The proposed Murrieta General Plan sets in place policies that will help to define and direct future growth in the City of Murrieta. The Plan also provides land use designations and development densities for all areas of the City. The Plan provides residential growth, potentially adding 38,255 new dwelling units to the City at buildout, bringing the total number of dwelling units in the City to 50,906. These households would support a potential population increase of about 105,450 residents at buildout. Non-residential development would increase employment in Murrieta by 63,000 jobs for a total of approximately 73,200 jobs at buildout. While the General Plan will guide and direct this growth, growth will ultimately be dependent on capital investment in the City.

5. CEQA Considerations

Growth-inducing impacts are considered to be those effects of a project that result in growth beyond that proposed by the project itself. A project is generally considered growth-inducing if it results in the extension of urban services, infrastructure, or a transportation corridor into a previously unserved area or, removes a major obstacle to growth. The proposed City of Murrieta General Plan would result in growth inducing impacts and the extension of infrastructure into previously unserved areas. However, the growth projected under the proposed Land Use Element is not substantially greater than the levels allowed under the Southwest Area Plan which is the basis for the current growth projections anticipated by SCAG.

Along with local direct growth induced by the fulfillment of the Murrieta General Plan are non-local, indirect growth impacts. These consist of increased demand for more personal and business services, consumer goods, employment opportunities, and housing throughout the region that are associated with Murrieta's growth. This share of associated growth that will be borne by other communities in Riverside, San Diego, Orange and San Bernardino County. Many interdependent demographic and economic variables prevent a reasonable estimate of these regional impacts.

5.2 SHORT-TERM USES OF THE ENVIRONMENT VERSUS LONG-TERM PRODUCTIVITY

CEQA Section 21100 of the Public Resources Code states that the relationship between the local short-term uses of the environment and the maintenance and enhancement of long-term productivity must be discussed in an EIR. This discussion must include the cumulative and long-term effects of the proposed plan which adversely affect the environment. Special attention should be given to impacts which narrow the range of beneficial uses of the environment.

The proposed Land Use Element provides a framework for development within the City by designating land use types and specifying development potential. Although changes to General Plan land use designations can be made, the commitment of areas of the City to certain land uses in the short-term could preclude development of these areas with other land uses. Development of the proposed General Plan has considered options to the type and amount of development proposed with the goal of achieving the maximum long-term benefit to the City while attempting to avoid significant environmental effects.

Although long-term impacts of the Plan have been reduced to less than significant levels, impacts would still result with development under the proposed Plan. These impacts would include increased demands on the transportation system, increases in energy and water consumption, and increases in demand for public services and utilities.

Justification for growth and associated environmental impacts that would occur under the Plan is based on the City's need to meet demands for employment, commercial and industrial facilities, and housing, while maintaining adequate levels of public services and the economic viability of the City.

5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Under CEQA, an EIR is required to disclose irreversible effects resulting from the implementation of a proposed project [CEQA Guidelines Section 15126 (f)]. Impacts associated with a proposed development may be considered to be significant and irreversible if:

- The project would involve a large commitment of non-renewable resources.
- The primary and secondary impacts of a project would generally commit future generations to similar uses (such as a highway improvement that provides access to a previously inaccessible area).
- The project involves uses in which irreversible damage could result from potential environmental accidents associated with the project.

CEQA also states that ir retrievable commitments of resources are to be evaluated to ensure that such consumption is justified.

Development would commit future generations to the uses specified in the General Plan, through the conversion of vacant and open space lands to more urban uses. While this would be considered significant the General Plan is a document that is meant to change and can be amended in response to changing conditions and priorities within the City. Readily available natural resources will be used in construction and a minimum of open space will be lost where development is currently permitted. Increases in demand for and the use of gasoline, fuel oil, and natural gas stemming from future growth is not expected to result in shortfalls in the availability of these resources. While it is clear that some irreversible environmental changes will occur, it is important to point out that the General Plan is an essential document for the City which is intended to support reasonable growth, avoid significant impacts on the environment, and maintain the economic viability and quality of life in the City.

5.4 CUMULATIVE IMPACTS

CEQA requires discussion in an Environmental Impact Report of impacts which are individually limited but cumulatively considerable. "Cumulatively considerable" refers to the incremental effects of an individual project which are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Cumulative impacts would occur through loss of vacant land common to all areas of urban growth in the southwest Riverside County region. While the acreage that is converted to urban uses may be relatively small in any given instance, each parcel converted contributes to an increase in impervious surfaces at each site, thus generally increasing peak flows and decreasing times of concentration of surface runoff. While the amount of new runoff from each site would be incrementally very minor, the cumulative effect of all developments on the City's local drainage system and regional wastewater treatment systems would add substantially to existing flow volumes. Similarly, degradation of the quality of surface waters as well

5. CEQA Considerations

as that of groundwater would be slight for each individual dwelling unit but would add to the cumulative contaminant load carried into the hydrologic environment.

The project's contribution to the growth and urbanization of the Cities of Murrieta and Temecula and other unincorporated areas in southwest Riverside County will also result in the loss, degradation, and fragmentation of natural habitat areas. As established in the Biological Resources section, the Murrieta General Plan Area supports a rich and diverse flora and fauna including known occurrences and potential habitat for special-status species. Implementation of the proposed project will, therefore, contribute significantly to the loss of biological resources in the region. While project-specific impacts can be mitigated to a less-than-significant level the cumulative net loss of land area supporting areas of natural habitat will overcome any one projects' ability to compensate for lost habitat values. Therefore, cumulative impacts to biological resources are considered to be *significant and unavoidable*.

Other cumulative effects would consist of increased traffic congestion and associated increases in noise and pollutant emissions into the atmosphere resulting in a potential for a lessening in air quality. As cumulative development increases traffic volumes in the area, the noise environment would become increasingly incompatible with residential uses.

Increased cumulative demand for public services, including police, fire and schools would also occur. This would be both a service impact as well as a fiscal impact upon City and other agency expenditure patterns.

Cumulative impacts of development under the Murrieta General Plan should be continually monitored through the environmental review process of proposed projects, and additional detailed mitigation measures should be included as part of project EIR's performed for individual projects as development occurs in the City of Murrieta.

6. PROJECT ALTERNATIVES

6.0 INTRODUCTION

In accordance with section 15126 of CEQA Guidelines, a Draft EIR must describe a range of reasonable alternatives to the proposed project that could feasibly attain the objectives of the project. The comparative environmental impacts of the alternatives must be described and evaluated. The CEQA Guidelines also require that the "No Project" Alternative and its impacts be evaluated, and that the discussion focus on alternatives capable of eliminating any significant adverse environmental effects of the project, or reducing them to a less than significant level. Although the analysis of the significant effects of alternatives need not be exhaustive or of the same detail as the analysis of the proposed project, it should provide sufficient information to permit a reasonable choice about the feasibility of various alternatives.

6.1 SUMMARY OF ALTERNATIVES

Three alternatives to the proposed General Plan are considered as part of the environmental review for this project:

1. No Growth. This alternative assumes that no new development would occur in the City. Impacts would solely be based on existing environmental influences in the City and those that would continue to be created outside of the City (such as traffic generation).
2. No Project (Buildout under the Southwest Area Plan). The "No Project" Alternative would allow development in the City to continue in conformance with the County land use designations set forth in the SWAP as they applied prior to incorporation. Buildout under the SWAP would result in approximately 33,334 residential units, 1,902 acres of commercial development, 1,952 acres of industrial development, and 1,902 acres of Multiple-Use development. This alternative would provide an increase in commercial development of approximately 18 percent over the levels in the proposed general plan, and would result in 17,572 fewer residential units.
3. Specific Plan Alternative. This alternative incorporates all specific plans proposed and approved in the City and Sphere of Influence, the Citizen's Committee recommendation to the Board of Supervisors for SWAP, and a few intensified "worst-case" land use areas, including the Golden Triangle. There is a greater emphasis on commercial and industrial land uses, and a 22,262 decrease in dwelling units. Where the proposed Plan designates nearly all industrial as "Light Industrial" this alternative has a larger percentage of "General Industrial". Only 10 acres of the Plan area are devoted

**TABLE 6-1
MURRIETA GENERAL PLAN
ALTERNATIVE LAND USE COMPARISONS**

Acreage			
General Plan Designations	SWAP Alternative	Specific Plan Alternative	Proposed General Plan
Hillside Residential	1,906	708	
Estate Residential	5,728	1,977	4,119
Rural Residential	1,124	4,125	2,687
Single Family 1 Residential	5,267	7,729	7,374
Single Family 2 Residential	638	779	1,392
Multi-Family 1 Residential	77	137	304
Multi-Family 2 Residential	249	249	258
Sub-Total Residential	14,989	15,704	16,151
Regional Commercial			422
Community Commercial			580
Neighborhood Commercial	1,701	2,031	55
Resort/Recreation Commercial			59
Professional Commercial			146
Multiple-Use	201	10	303
Sub-Total Commercial	1,902	2,041	1,565
Light Industrial	1,693	655	1,869
General Industrial	259	1800	76
Sub-Total Industrial	1,952	2,455	1,945
Civic	252	240	339
Open Space	1,182	1,166	1,962
Parks	652	866	869
Agriculture/Farming/Mining	281	0	0
Reserve	2,915	0	0
Streets	4,519	6,172	5,830
Sub-Total Other	9,801	8,444	8,983
TOTAL PLAN AREA	28,644	28,644	28,644
Buildout Projections			
TOTAL DWELLING UNITS	33,334	28,644	50,906
TOTAL POPULATION	95,335	127,277	145,591

to Multiple-Use versus the 303 acres designated by the proposed General Plan and the alternative proposes 796 fewer acres of open space.

A comparison of the land use acreage and dwelling units of the proposed General Plan with the No Project and Specific Plan Alternatives is shown in Table 6-1.

6.2 NO GROWTH ALTERNATIVE (EXISTING CONDITIONS)

The No Project Alternative assumes that no further development would be allowed within the City of Murrieta. Land uses would remain as they exist in the City today, and the environmental conditions previously described for each topical area under the heading existing conditions would apply. Under the No Growth Alternative over 50 percent of the Plan area would consist of vacant or non-urbanized lands. Even without development in the City, certain environmental impacts would continue to affect the City, particularly those associated with regional increases in traffic and related increases in noise levels and air pollution.

ENVIRONMENTAL IMPACTS

Land Use

This alternative would not change existing land use, thus, all impacts associated with land use changes and new development in the City, such as increases in traffic, air pollution, and noise, would be eliminated. With over 50 percent of the study area vacant the substantial growth projected under the proposed plan would not occur. Compared to the proposed general plan there would be 132,940 fewer residents in the City, 31,834 fewer residential units, and 2,658 fewer acres of commercial and industrial use. Agricultural production would remain viable for 281 acres of the General Plan area. Without growth, this alternative would eliminate those aspects of the Plan which would serve to upgrade infrastructure, and improve public services.

Housing

Under this alternative housing stock in the study area would remain relatively stable with approximately 12,651 households and a population of approximately 36,460. Under this alternative the City would remain housing "rich" and jobs "poor" relative to the regional goals for jobs/housing balance. Unlike the proposed plan, this alternative would not improve the City's balance of jobs and housing.

Energy and Water Conservation

Current patterns of energy and water use and consumption would continue in the study area. While some existing structures and facilities include conservation technology, wasteful energy and water use would continue in many areas without the benefit of new technology and higher building standards. The alternative would not significantly increase water and energy consumption due to the limit on population growth and new development. Impacts in contrast to the proposed Plan would be less than significant.

6. Project Alternatives

Biotic Resources

Wildlife habitat and sensitive species would not be displaced by residential and non-residential development and impacts on remaining areas due to population increases would not occur. As new areas of biotic resources would not be disturbed, impacts under this alternative would be less than significant.

Cultural Resources

Under the no development alternative, there would be no disturbance or loss of undiscovered cultural resources due to new development and increases in the population of the area. However, without new development it would be unlikely that the archaeological/paleontological community would not have the opportunity to research areas proposed or under construction, and as a result the resources in the City would remain unknown.

Transportation and Circulation

All roadway segments in the City are currently operating at volume to capacity ratios no greater than LOS C. Although the potential for impacts due to increases in traffic levels in the City would be eliminated, traffic levels would still increase due to traffic generating projects in adjacent jurisdictions and throughout the region. Therefore, it is likely that LOS deficiencies would occur over time.

Facilities and Utilities

No increases in utility usage are anticipated under the No Growth Alternative. The rate of use of natural resources would remain fairly constant, and the need for new facilities or facility upgrades would be limited to those required to address current deficiencies or to replace aging infrastructure.

Community Services

Existing levels of service for police, libraries, schools, and parks would remain stable as no new demand for these services would be generated. Police and fire services would remain adequate to serve the population, however library service would remain deficient. Impacts on the school districts that serve the City would be limited to the demands placed on the system by existing residential uses.

Soils, Faulting and Seismicity

With no growth occurring in the City, impacts from grading and drainage would not occur. There would be less overall development and the number of buildings and inhabitants in the City would not increase, and as a result, fewer people and buildings would be at risk from geologic and seismic hazards.

Flood Hazard and Water Quality

Under the No Growth Alternative, generation of surface stormwater would not increase and erosion from construction activities would not occur. Potential groundwater contamination problems which already exist would continue unless programs for reducing water pollution are implemented. Although fewer people

would be at risk from flooding due to a lack of infrastructure, flood hazard would remain significant and the ability to fund improvements would be substantially limited when compared to the proposed Plan.

Hazardous Materials

Under this alternative there would be no new sources of hazardous materials and hazardous waste generation would remain stable or decline as new regulations are put into affect.

Emergency Preparedness

As the City currently maintains an adequate degree of emergency preparedness, and as no new demands would be placed on resources related to emergency response, there would be no impacts associated with the No Growth Alternative.

Noise

Under the No Growth Alternative the amount of noise generated within the City would not increase. There would be no construction related noise and no increase in noise intensive industrial and commercial uses. Murrieta would, however, be impacted by regional increases in traffic and associated increases in noise along City streets and adjacent freeways. As such, noise impacts from vehicular traffic would increase, but the increase would be much less than would occur under the proposed General Plan.

Air Quality

This alternative would not increase levels of air pollution. Pollutants resulting from existing vehicular, industrial, and agricultural sources would still be generated. Compared to the proposed General Plan, no construction related pollution would be generated and there would be no increase in air pollution due to increased vehicular traffic.. Air pollution generated in the City by automobiles would be substantially less than under the proposed plan. Although local impacts would not occur under this alternative, the City's air quality would be influenced by regional growth and somewhat offset by improved conditions likely to occur with implementation of stricter federal, State, and regional air quality regulations.

Aesthetics/Visual Quality

With no new development, scenic views would not be degraded or obstructed and no grading or alteration of undisturbed hillsides and ridgelines would occur. Murrieta and Warm Springs Creek would remain open space corridors with minimal encroachment by urban uses. Without increases in development the visual character of the City would remain rural and visual impacts would not be significant.

6.3 NO PROJECT (BUILDOUT OF SWAP)

The "No Project" Alternative assumes that the General Plan would not be adopted and that land use designations and regulations would revert to those provided by the South West Area Plan (SWAP) prior

6. Project Alternatives

to incorporation of the City of Murrieta. Buildout under the SWAP would result in approximately 14,989 residential units, 1,902 acres of commercial use, 1,952 acres of industrial use and 201 acres of mixed-use. This alternative would increase commercial development by approximately 21 percent over the levels in the proposed Plan, and would result in 1,162 fewer residential units. Compared to the proposed Plan there would be a 780 acre reduction in open space, however, nearly 3,000 acres would be retained as "Reserve/Future Choice". In addition to potential increases in open space, it is assumed under this alternative that acreage designated "Reserve/Future Choice" would also be subject to residential and non-residential development. The Land Use Plan for the No Project Alternative is shown in Figure 6-1.

ENVIRONMENTAL IMPACTS

Land Use

This alternative would permit new development that would conform to the 1989 SWAP prepared by Riverside County. The land use mix under the No Project Alternative would increase commercial development by 21 percent while reducing residential development by 34 percent. Industrial acreage would be roughly equivalent to the proposed Plan. Unlike the proposed Plan the alternative would retain 281 acres of land designated for Agriculture/Farming/Mining, which could create land use conflicts as urban uses are located within close proximity to agricultural uses. Land use designations under SWAP would not respond to existing and projected conditions in the City and would not provide what is considered in the proposed General Plan to be the optimal mix of land uses.

Housing

This alternative would result in 33,334 housing units, compared to the 50,906 units that could be built under the proposed General Plan. The fewer housing units contributed by this alternative along with an increase in commercial development would be potentially more beneficial than the proposed plan in reducing the imbalance of jobs to housing in the "housing rich" Southwest Riverside County area. In terms of housing type/affordability, the No Project Alternative would be less beneficial, providing more units than the proposed Plan in the lower density range and fewer units in the more affordable higher density range.

Energy and Water Conservation

Under this alternative energy and water use would be slightly less than under the proposed plan due to a smaller buildout population. The potential for impacts without a comprehensive energy strategy would be significant under this alternative.

FIGURE 6-1

LAND USE KEY

	Hillside Residential
	Estate Residential
	Rural Residential
	Single Family Residential
	Attached/Planned Unit
	Multi-Family 1
	Multi-Family 2

	Professional Commercial
	Neighborhood Commercial
	Community Commercial
	Recreational/Resort
	Regional Commercial
	Mixed Use

	Light Industrial
	General Industrial
	Civic/Institutional
	Park
	Open Space
	Agriculture/Farming/Mining
	Reserve/Future Choice



Biotic Resources

Under the No Project Alternative a greater amount of open space would be provided in the sensitive hillsides and canyons in the northwestern portion of the study area. Sensitive areas in the northern City and sphere area west of I-215 would be designated "Reserve/Future Choice" and Hillside Residential rather than "Rural Residential" and "Equestrian Residential" under the proposed Plan. Unlike the proposed Plan, large areas of Murrieta and Warm Springs Creeks would not be designated as open space and could be subject to development impacts.

Cultural Resources

Impacts on cultural resources would be similar under this alternative to those that could be expected under the proposed Plan. Without new City policies and procedures, construction for new development could uncover or destroy archaeological and paleontological resources.

Transportation and Circulation

Under this alternative there would be a total of 1.4 million trip ends produced within the City and sphere which represents a less than one percent increase compared to the proposed Plan. While different roadways would be impacted under this alternative, the total number of roadways that would experience demands over design capacity would increase by one from six to seven. The comparative analysis prepared by Kahn and Kain Associates concludes that there would be fewer impacts under the proposed Plan than under the No Project Alternative. As with the proposed Plan, impacts would be significant and adequate levels of service would need to be ensured through implementation of the proposed circulation plan and by project by project mitigation.

Facilities and Utilities

Given the smaller population under this alternative as compared to the proposed Plan, buildout would reduce the demand for all utilities analyzed with the exception of electricity. Under this alternative approximately 8,508 million cubic feet of natural gas and 1,913 million kilowatt-hours of electricity would be used on a yearly basis. Water demand would total approximately 12,364 million gallons per year, wastewater generation would total 7,870 million gallons per year, and solid waste generation would total 124,889 tons per year. These figures represent a small increase in the consumption of electricity, and a reduction in natural gas use of 6 percent, a reduction in solid waste generation of 35 percent, a reduction in wastewater generation of 16 percent, and a reduction in water demand of 22 percent as compared to the proposed General Plan.

Community Services

Demand for police, library, school, and park services would decrease by approximately 34 percent as compared to the proposed Plan, due to the smaller buildout population. Under this alternative there would

6. Project Alternatives

be a 217 acre, or 25 percent reduction in parkland compared to the proposed Plan which would provide more than 6 acres of parkland per 1,000 persons, which is roughly equivalent to the proposed Plan.

Soils, Faulting and Seismicity

The potential for impacts related to soils, faulting, and seismicity would be similar to the proposed plan under this alternative. Without considering additional residential development within areas designated "Reserve/Future Choice", residential development and the number of residents in the City would decrease as would the potential for risk from geologic and seismic hazards. The type of impacts that would occur due to grading and erosion would not be substantially different under this alternative, however, assuming development of areas designated "Reserve/Future Choice" there would be significant increase in the degree of impacts that would occur.

Flood Hazard and Water Quality

The potential for impacts due to flood hazard would be reduced under this alternative in terms of the number of residents and residential properties potentially exposed to a flood. The potential for impacts on surface and ground water quality would increase due to a 24 percent increase in industrial uses over the amount designated by the proposed Plan. The increase in industrial floor area would have a greater potential for degrading surface and groundwater quality than other land use types.

Hazardous Materials

Compared to the proposed Plan, this alternative would reduce household hazardous waste by approximately 34 percent and increase the use and production of hazardous waste from commercial sources by approximately 21 percent. Production of hazardous waste from industrial sources would increase by a negligible amount.

Emergency Preparedness

Less residential development and fewer residents would reduce the demand on emergency services and the number of residents at risk as compared to the proposed plan. The reduction in demand for emergency services in the residential sector would be partially off-set by the greater amount of commercial floor area and the increase in daytime population in this alternative.

Noise

The largest source of noise in the City is transportation related. With traffic generation under this alternative generally equivalent to the proposed Plan, there would not be a significant change in noise impacts. As with the proposed Plan noise levels would increase significantly and careful review of noise sensitive development proposals would be required to mitigate these effects.

Air Quality

Quality impacts would be generally equivalent to those anticipated for the proposed General Plan. As is the case with all of the alternatives, the City's air quality would be strongly influenced by regional growth.

Aesthetics/Visual Quality

Impacts on views and visual quality would be similar to those that could occur under the proposed Plan. Both scenarios would leave the City in a built-out condition, and the quality of new development would be dependent to a large degree on the level of design review for new developments. Without knowing the ultimate land uses that would occupy those areas designated "Reserve/Future Choice", differences in total open space preserved and the amount of hillsides subject to development cannot be determined.

6.4 SPECIFIC PLAN ALTERNATIVE

This alternative is based on a previous plan for the City developed by a citizens committee in 1989, and on land uses designated by approved and proposed specific plans. Certain aspects of this alternative were also designed by the General Plan Advisory Committee to test various land use and circulation scenarios. The Specific Plan Alternative would result in the development of 44,485 dwelling units, 2,041 acres of commercial use, 2,455 acres of industrial use, and 1,166 acres of open space. In comparison to the proposed General Plan this alternative would devote a much larger area to commercial and industrial development while reducing residential uses and open space. The Land Use Plan for the Specific Plan Alternative is shown in Figure 6-2.

ENVIRONMENTAL IMPACTS

Land Use

Under the Specific Plan Alternative there would be a total of 44,485 dwelling units and an estimated population of 127,277 at buildout. This represents an estimated 13 percent decrease in population and housing when compared to the proposed General Plan. The alternative would increase industrial acreage by 26 percent and commercial acreage by 30 percent over the levels included in the proposed Plan, and, as a result, traffic generation and traffic related impacts on noise levels and air quality would increase. Industrial acreage would be more dispersed under this alternative and would be concentrated in five areas of the City rather than the three depicted in the proposed General Plan, and, as a result there would be greater potential for conflict between residential uses and industrial uses. Contrary to the proposed Plan industrial use in this alternative would emphasize "General Industrial" rather than "Light Industrial" which would reduce impacts associated with air pollution, noise, and hazardous materials. There would be 796 fewer acres of open space under the Specific Plan Alternative due to the absence of continuous open space corridors along Murrieta and Warm Springs Creeks.

Land Use Plan Specific Plan Alternative

FIGURE 6-2



This Alternative is based on the 1989 Citizens Committee Recommendation for the Southwest Area Plan, Advisory Committee Final Recommendation for the Sun City Menifee Valley Plan, approved Specific Plans and proposed Specific Plans. All land uses from these plans have been adapted to designations developed specifically for the Murrieta General Plan.

Housing

This alternative would result in 44,485 housing units, compared to the 50,906 units that could be built under the proposed General Plan. The decrease in housing units and the related increase in commercial and industrial development would be more beneficial than the proposed Plan in improving the balance of jobs to housing in the "housing rich" Southwest Riverside County area. While there would be beneficial effects related to jobs/housing balance, the reduction in higher density residential under this alternative as compared to the Proposed General Plan would leave the City with a smaller percentage of affordable housing units. To be specific this alternative would provide 174 fewer multi-family housing units, representing a decrease of 31 percent.

Energy and Water Conservation

Under this alternative energy and water use would be moderately higher than the proposed Plan due to a 16 percent increase in the buildout population. While consumption would increase, new development (particularly recycled land uses) would benefit from new building standards and technology that provide for a more efficient use of water and energy resources. As with the proposed Plan, impacts due to conversion of open space areas to built uses would remain less than significant.

Biotic Resources

Compared to the proposed Plan there would be increased potential for environmental impacts due to the lack of an open space designation and the potential for development along Murrieta and Warm Springs Creeks. This loss would not only be significant due to the quantity of habitat lost, but also due to the high biotic resource value and scarcity of wetlands and riparian plant communities in the State. Impacts due to development in other sensitive habitat areas of the City would be equivalent to those that would occur under the proposed General Plan.

Cultural Resources

Impacts on cultural resources would be similar under this alternative to those that could be expected under the proposed Plan. Construction for new development could uncover or destroy archaeological and paleontological resources.

Transportation and Circulation

Under this alternative traffic generation would increase due to increases in commercial and industrial development. The number of vehicle trips generated would increase by 235,317 trips or 16 percent when compared to the proposed General Plan. Due to higher travel demand and volume-to-capacity ratios the number of roadways operating above design capacity would increase from 6 roadways under the proposed General Plan to 11 roadways under this alternative.

Facilities and Utilities

Given the smaller buildout population under this alternative as compared to the proposed Plan, buildout would reduce impacts due to solid waste and wastewater generation, as well as impacts on water supplies. The increase in industrial and commercial acreage would result in slight increases in demand for electricity and natural gas consumption. Buildout under this alternative would result in the consumption of 9,106 million cubic feet of natural gas, 2,151 kilowatt-hours of electricity, and 12,181 million gallons of water on a yearly basis. Approximately 166,733 tons of solid waste, and 8,060 million gallons of wastewater would be generated on a yearly basis with buildout under this alternative.

Community Services

Compared to the proposed plan, demand for police, fire, library, school, and park services would decrease by approximately 13 percent due to the reduction in the residential population of the study area. While it is not estimated, the increase in daytime population due to increases in commercial and industrial uses could slightly offset the reduction in demand for police and fire services.

Soils, Faulting and Seismicity

Potential impacts related to geology, soils, and seismicity would be less under this alternative as there would be fewer residents in the City that could be exposed to geologic and seismic hazards. Although the level of risk associated with these hazards would be reduced under this alternative, impacts would still remain significant.

Hydrology and Water Quality

The potential for impacts due to flood hazard could potentially increase under this alternative due to the lack of an open space corridor along Murrieta and Warm Springs Creeks. The potential for impacts on water quality would likely increase due to an approximate 56 percent increase in combined industrial/commercial acreage. Consistent with the proposed Plan, impacts on hydrology and water quality would be considered potentially significant under this alternative.

Hazardous Materials

Compared to the proposed Plan, this alternative would reduce household hazardous waste by approximately 13 percent and the use and production of hazardous waste from commercial and industrial sources by approximately 56 percent. The greater amount of industrial acreage and the emphasis toward general rather than light industrial would increase the potential risk of a hazardous materials incident.

Emergency Preparedness

The smaller buildout population and amount of residential development under this alternative would decrease the demand placed on emergency services as effected by the number of residents at risk compared to the proposed Plan. The increase in industrial acreage in this alternative would tend to

6. Project Alternatives

increase the potential for hazardous materials incidents in the event of an earthquake or other catastrophic event.

Noise

As the largest source of noise in the City is transportation related, an increase of approximately 14 percent in daily vehicle trip ends compared to the proposed Plan would increase noise generated in the City from mobile sources by approximately the same percentage. Increases in noise due to regional growth and traffic would also continue to impact the City.

Air Quality

As with noise, the greatest source of air pollution in the City is from mobile sources, primarily automobiles. As a result, total impacts on air quality as compared to the proposed plan would be likely to increase by approximately 16 percent due to the estimated increase in daily trips. Impacts on air quality associated with mobile source emissions and short-term construction activities would remain significant under this alternative. As is the case with all of the alternatives, the City's air quality would be strongly influenced by regional growth with potential for improved conditions due to implementation of stricter federal, State and regional air quality regulations.

Aesthetics/Visual Quality

Impacts on views and visual quality would be similar to those that could occur under the proposed Plan. Both scenarios would leave the City in a built-out condition and the quality of new development would be dependent to a large degree on the level of design review for new developments. Without the implementation of design standards and/or design review, impacts on views and visual quality would remain potentially significant. Impacts on views due to hillside development would be similar to the proposed Plan, however, the lack of an open space designation along Murrieta and Warm Springs Creeks under this alternative would increase the potential for visual impacts along the creek corridors.

6.5 REASONS FOR REJECTION

The CEQA Guidelines (section 15126, subd.(d)(1)) state that a lead agency must explain why alternatives to a project were rejected in favor of the project. Fundamental to an evaluation of the relative merits of the alternatives relative to the proposed project, is the consideration of the impacts of the alternatives and whether they achieve the fundamental objectives of the project. As stated in the Chapter 2. Project Description, the objectives of the Murrieta General Plan are:

- Balanced jobs and housing programs with complementary environmental and economic considerations;
- A series of agencies whose purpose is to ensure safety for people and property;
- A comprehensive plan to use people of all groups and backgrounds for on-going community enhancement;

- A combination of public and private transportation networks which provide a means of circulation in and through the City and surrounding areas;
- Emphasis on maintaining and improving the community health and welfare of all its residents;
- A plan for economic development which will provide a vital and diversified economy and a coordinated infrastructure;
- A series of identifiable land areas, buildings, community events, parks and open space in which citizens can take pride;
- A program in conjunction with educational agencies, which provides educational opportunities and facilities for all levels of learning, including alternative forms;
- A vision of the future in harmony with the environment, and sufficient foresight of those entrusted with this responsibility to be proactive, not reactive;
- Preservation and proper utilization of natural resources: air quality, geothermal, climate, recreational areas, and people; and
- A program to encourage expansion of the existing diverse medical base.

In the preceding discussion of alternatives in this section, environmental impacts for individual issue areas were evaluated in comparison to the proposed project. The matrix provided in Table 2-2 summarizes whether the impacts of the alternatives for individual issue areas would increase, decrease, or remain similar to those identified for the "Preferred Alternative".

In consideration of the objectives of the project and the impacts identified above, the following discussion sets forth the rationale for rejection of the alternatives in favor of the proposed Murrieta General Plan.

No Growth Alternative

While there is no doubt that the No Growth Alternative would reduce or eliminate the majority of impacts that would occur with implementation of the proposed General Plan, the alternative would support the status quo and would not achieve the objectives of the City. Without growth and implementation of the proposed land use plan, the City would not be able to respond to community values and existing and projected conditions and needs. The objective of providing a vital and diversified economy would not be realized and without growth and economic development, improvements in public services would be difficult to achieve. For all of these reasons, the No Growth Alternative has been rejected.

No Project Alternative (Buildout under the Southwest Area Plan)

Under the No Project Alternative development in the City would continue in conformance with Riverside County land use designations. This alternative would not benefit from the intensive planning, environmental, and economic studies conducted for the proposed General Plan, and, as a result, the land use plan for the City would not respond as well to changing land use needs, environmental constraints, and fundamental objectives for economic development. The circulation network and hierarchy of roads in the City would not change in response to regional influences and current projections taken into account

**TABLE 6-2
ALTERNATIVE COMPARATIVE IMPACT ANALYSIS**

	NO GROWTH ALTERNATIVE	NO PROJECT ALTERNATIVE	SPECIFIC PLAN ALTERNATIVE
LAND USE	○	●	●
GEOLOGY, SOILS, AND SEISMICITY	○	●	●
HYDROLOGY AND WATER QUALITY	○	●	●
BIOLOGICAL RESOURCES	○	●	●
POPULATION, HOUSING, EMPLOYMENT	●	○	○
UTILITIES	○	○	●
PUBLIC SERVICES	○	○	○
TRANSPORTATION/ CIRCULATION	○	●	●
AIR QUALITY	○	●	●
NOISE	○	●	●
HEALTH AND SAFETY	○	●	●
AESTHETICS/VIEWS	○	●	●
LIGHT AND GLARE	○	●	●
CULTURAL RESOURCES	○	●	●

- Impacts less than the proposed General Plan
- Impacts similar to the proposed General Plan
- Impacts greater than the proposed General Plan

in development of the proposed Circulation Element. On balance impacts under this alternative would not be reduced, however, rejection of the alternative is based primarily on its inability to guide development within the City in a manner consistent with the proposed General Plan's "Vision Statement" and objectives.

Specific Plan Alternative

Under this alternative commercial and industrial growth would be favored over residential growth. The subsequent effect would be increased traffic, air quality, noise, and hazardous material related impacts. Although population driven impacts related to solid waste and wastewater generation and demand for public services would be reduced, there would be a sizeable increase in overall adverse environmental effects. As with the No Project and No Growth Alternative, the Specific Plan Alternative would not respond to community needs, values, and environmental and economic priorities as established during the public participation process undertaken for the proposed General Plan.

Conclusion

It should be noted that all of the alternatives above were evaluated as part of the public participation process for the development of the proposed Murrieta General Plan. The alternatives were analyzed and considered in an attempt to avoid environmental impacts and determine the most appropriate mix of land use and circulation to facilitate the attainment of the community's vision for the City. Because the proposed Murrieta General Plan was derived through evaluation of these alternatives, the proposed General Plan is the environmentally superior alternative.

7. REPORT PREPARATION

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Joe Peery, *Mayor Pro-Tem*
Dave Haas, *Councilmember*
Gary S. Smith, *Councilmember*
Fred Weishaupl, *Councilmember*
Jack R. Smith, *City Manager*

NOTICE OF PREPARATION

TO: AGENCIES, ORGANIZATIONS, AND INTERESTED PERSONS

SUBJECT: Notice of Preparation of a General Plan and Environmental Impact Report in compliance with Title 14, Section 15082 (a) of the California Administrative Code.

PROJECT TITLE: **CITY OF MURRIETA GENERAL PLAN**

The City of Murrieta will be the Lead Agency for the preparation of an environmental impact report for the development of a comprehensive General Plan. The City is soliciting your views as to the scope and content of the environmental analysis for the EIR document in connection with the preparation of the General Plan.

The project description, location and potential environmental effects of the proposed project are contained in the attached materials. A copy of the Initial Study is attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date *but not later than 30 days* after receipt of this notice. Please send your response to:

Stephen Harding
Planning Director
City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

Please indicate a contact person in your response. If you require additional information, please call Stephen Harding at (714) 698-1040, Ext. 208.

Sincerely,

Stephen G. Harding
Planning Director

July 8, 1992

CITY OF MURRIETA

INITIAL STUDY CHECKLIST
(ENVIRONMENTAL IMPACT ASSESSMENT)

City of Murrieta General Plan
City of Murrieta

July, 1992

Prepared for:
Department of Planning
City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

Prepared by:
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PROJECT BACKGROUND

Project Title: The City of Murrieta General Plan.

Project Location: The City of Murrieta, County of Riverside, California

The City of Murrieta, incorporated July 1, 1991 encompasses approximately 25 square miles in the southwest portion of Riverside County (see Figure 1 and 2). The City is bordered by the City of Temecula to the south, the unincorporated community of Wildomar to the north, and areas of unincorporated Riverside County to the east and west. Interstate 15 and Interstate 215 pass through the City and converge near its southern boundary.

The City is located in the Temecula Valley Region. The Santa Ana Mountains and the Santa Rosa Plateau are located directly to the west, the Santa Margarita and Agua Tibia Ranges are to the south, and the San Jacinto ranges lie approximately 33 miles to the east.

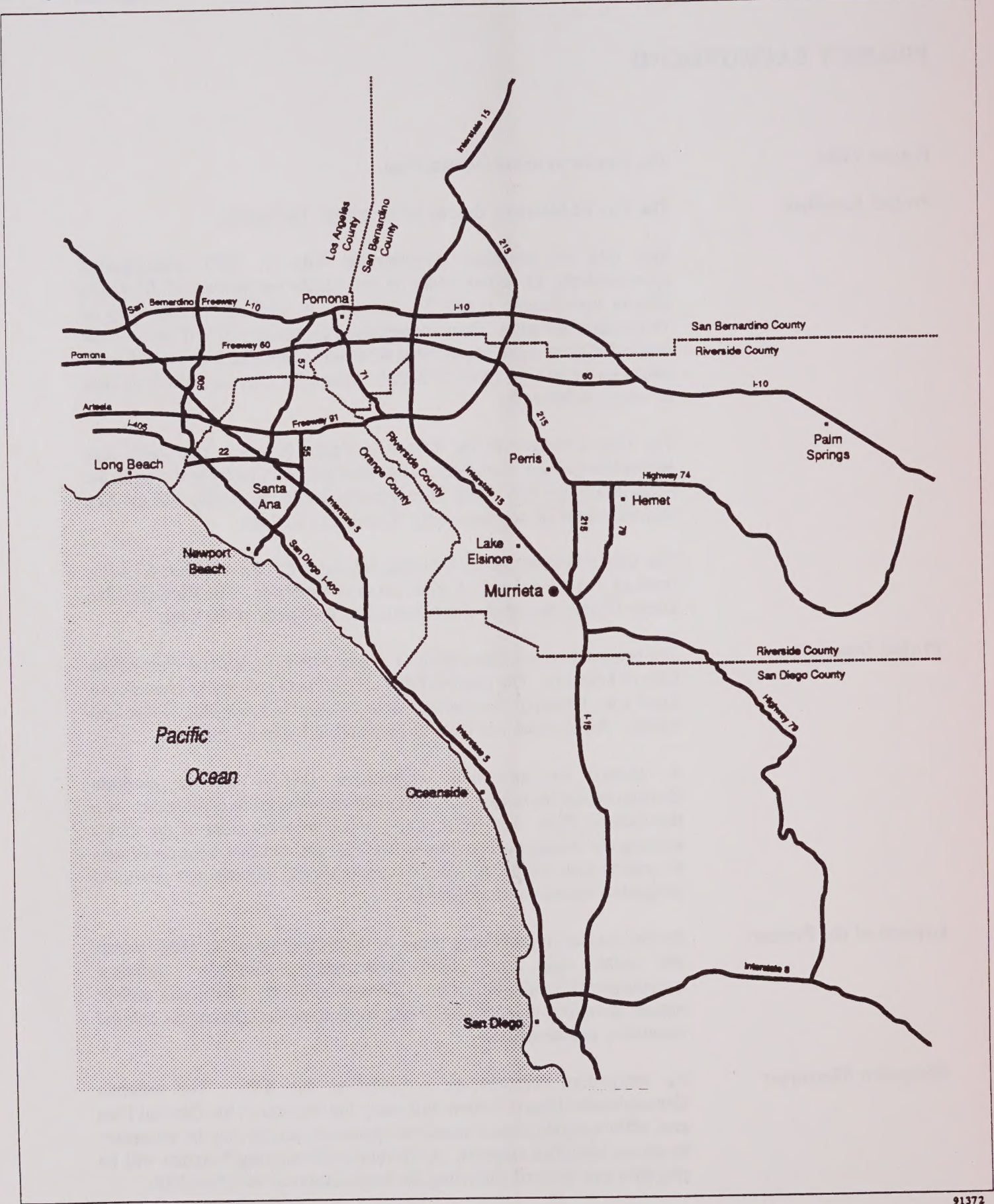
The City is approximately 80 miles southeast of Los Angeles; 65 miles north of San Diego; and 45 miles south of Riverside. The Riverside/San Diego County boundary lies 6.5 miles to the south of the City.

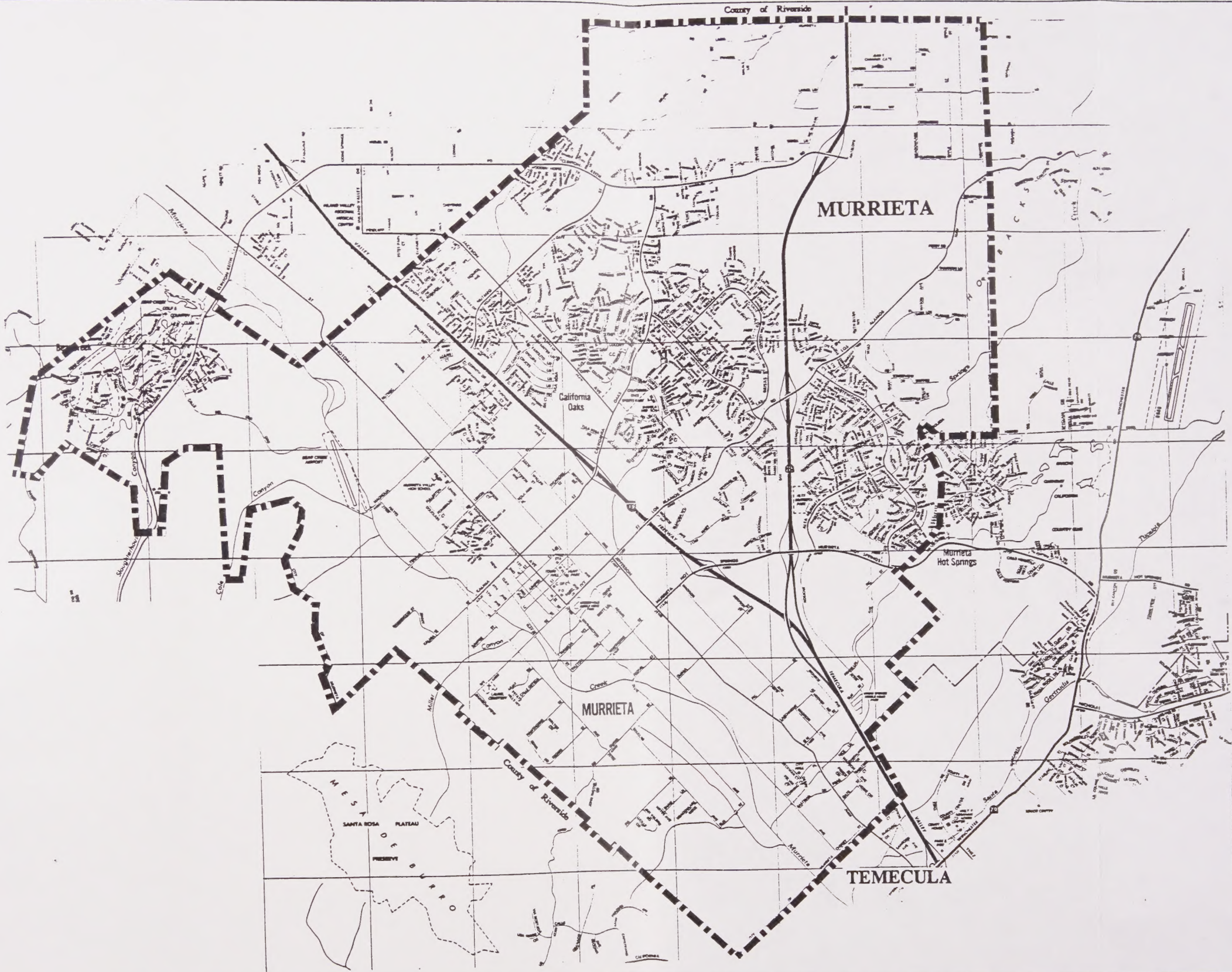
Project Description: The project involves preparation of a comprehensive General Plan for the City of Murrieta. The plan will include the State mandatory elements of Land Use, Housing, Circulation, Open Space, Conservation, Noise, and Safety. An optional Air Quality Element will also be prepared.

A Master Environmental Assessment (MEA) and a program Environmental Impact Report (EIR) will be prepared in conjunction with the General Plan. The MEA will provide an assessment of the City's existing environmental conditions. The EIR will forecast those conditions at general plan build out, identifying significant impacts and providing mitigation measures as necessary.

Impacts of the Project: Environmental impacts may occur in the following areas: earth; water; air; noise; light and glare; land use; population; housing; transportation/circulation; public services; utilities; health and safety; natural resources; risk of upset; parks, recreation, and open space; cultural resources; and aesthetics.

Mitigation Measures: No mitigation measures are proposed at this time. The program Environmental Impact Report will study the impacts of the General Plan and, after analysis, assess where mitigation measures may be necessary to reduce identified impacts. A Mitigation Monitoring Program will be prepared and adopted following the certification of the Final EIR.





No Scale

Source: Automobile Club of Southern California

2. ENVIRONMENTAL CHECKLIST FORM

(To Be Completed By Lead Agency)

I. Background

1. Name of Proponent: **City of Murrieta**
2. Address and Phone Number of Proponent:
26442 Beckman Court
Murrieta, CA 92562
(714) 698-1040
3. Date Checklist Submitted: **July 8, 1992**
4. Agency Requiring Checklist: **City of Murrieta Planning Department**
5. Name of Proposal: **CITY OF MURRIETA**
GENERAL PLAN

II. Environmental Impacts

(Explanations of all "yes", "maybe", and "no" answers are provided on the attached sheets).

	Yes	Maybe	No
1. EARTH. Will the proposal result in:			
a. Unstable earth conditions or in changes in geologic substructures?	___	<u> X </u>	___
b. Disruptions, displacements, compaction or overcovering of the soil?	<u> X </u>	___	___
c. Change in topography or ground surface relief features?	<u> X </u>	___	___
d. The destruction, covering or modification of any unique geologic or physical features?	___	<u> X </u>	___
e. Any increase in wind or water erosion of soils, either on or off the site?	<u> X </u>	___	___

	Yes	Maybe	No
f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?	<u> X </u>	<u> </u>	<u> </u>
g. Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?	<u> X </u>	<u> </u>	<u> </u>
2. AIR. Will the proposal result in:			
a. Substantial air emissions or deterioration of ambient air quality.	<u> X </u>	<u> </u>	<u> </u>
b. The creation of objectionable odors?	<u> </u>	<u> X </u>	<u> </u>
c. Alteration of air movement, moisture, or temperature, or any change in climate either locally or regionally?	<u> </u>	<u> </u>	<u> X </u>
3. WATER. Will the proposal result in:			
a. Changes in currents, or the course or direction of water movements, in either marine or fresh waters?	<u> X </u>	<u> </u>	<u> </u>
b. Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	<u> X </u>	<u> </u>	<u> </u>
c. Alterations to the course or flow of flood waters?	<u> </u>	<u> X </u>	<u> </u>
d. Change in the amount of surface water in any water body?	<u> </u>	<u> X </u>	<u> </u>
e. Discharge into surface waters, or in any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?	<u> </u>	<u> X </u>	<u> </u>
f. Alteration of the direction or rate of flow of ground waters?	<u> </u>	<u> </u>	<u> X </u>
g. Change in the quantity of ground waters either through direct additions or withdrawals, or through interceptions of an aquifer by cuts or excavations?	<u> </u>	<u> X </u>	<u> </u>
h. Substantial reduction in the amount of water related hazards such as flooding or tidal waves?	<u> </u>	<u> X </u>	<u> </u>

	Yes	Maybe	No
i. Exposure of people or property to water related hazards such as flooding or tidal waves?	<u>X</u>	_____	_____
4. PLANT LIFE. Will the proposal result in:			
a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	<u>X</u>	_____	_____
b. Reduction of the numbers of any unique rare or endangered species of plants?	<u>X</u>	_____	_____
c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	<u>X</u>	_____	_____
d. Reduction in acreage of any agricultural crop?	_____	<u>X</u>	_____
5. ANIMAL LIFE. Will the proposal result in:			
a. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms or insects)?	<u>X</u>	_____	_____
b. Reduction of the numbers of any unique, rare or endangered species of animals?	<u>X</u>	_____	_____
c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	<u>X</u>	_____	_____
d. Deterioration to existing fish or wildlife habitat?	<u>X</u>	_____	_____
6. NOISE. Will the proposal result in:			
a. Increases in existing noise levels?	<u>X</u>	_____	_____
b. Exposure of people to severe noise levels?	<u>X</u>	_____	_____
7. LIGHT AND GLARE. Will the proposal produce new light and glare?	<u>X</u>	_____	_____
8. LAND USE. Will the proposal result in a substantial alteration of the present or planned land use of an area?	<u>X</u>	_____	_____
9. NATURAL RESOURCES. Will the proposal result in:			
a. Increase in the rate of use of any natural resources?	_____	<u>X</u>	_____

	Yes	Maybe	No
b. Substantial depletion of any nonrenewable natural resource?	_____	<u> X </u>	_____
10. RISK OF UPSET. Will the proposal involve:			
a. A risk of an explosion or the release of hazardous substances (including but not limited to, oil, pesticides, chemicals, or radiation) in the event of an accident or upset conditions?	_____	<u> X </u>	_____
b. Possible interference with an emergency response plan or an emergency?	_____	<u> X </u>	_____
11. POPULATION. Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?	_____	<u> X </u>	_____
12. HOUSING. Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?	<u> X </u>	_____	_____
13. TRANSPORTATION/CIRCULATION. Will the proposal result in:			
a. Generation of substantial additional vehicular movement?	<u> X </u>	_____	_____
b. Effects on existing parking facilities or demand for new parking?	<u> X </u>	_____	_____
c. Substantial impact upon existing transportation systems?	<u> X </u>	_____	_____
d. Alterations to present patterns of circulation or movement of people and/or goods?	<u> X </u>	_____	_____
e. Alterations to waterborne, rail or air traffic?	_____	_____	<u> X </u>
f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?	<u> X </u>	_____	_____
14. PUBLIC SERVICES. Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:			
a. Fire protection?	<u> X </u>	_____	_____
b. Police protection?	<u> X </u>	_____	_____

	Yes	Maybe	No
c. Schools?	<u>X</u>	_____	_____
d. Parks or other recreational facilities?	<u>X</u>	_____	_____
e. Maintenance of public facilities, including roads?	<u>X</u>	_____	_____
f. Other governmental services?	_____	<u>X</u>	_____
15. ENERGY. Will the proposal result in:			
a. Use of substantial amounts of fuel or energy?	_____	<u>X</u>	_____
b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?	_____	<u>X</u>	_____
16. UTILITIES. Will the proposal result in a need for new systems, or substantial alterations to the following utilities?			
a. Power or natural gas?	_____	<u>X</u>	_____
b. Communications systems?	_____	<u>X</u>	_____
c. Water?	_____	<u>X</u>	_____
d. Sewer or septic tanks?	_____	<u>X</u>	_____
e. Storm water drainage?	_____	<u>X</u>	_____
f. Solid waste and disposal?	_____	<u>X</u>	_____
17. HUMAN HEALTH. Will the proposal result in:			
a. Creation of any health hazard or potential health hazard (excluding mental health)?	_____	<u>X</u>	_____
b. Exposure of people to potential health hazards?	_____	<u>X</u>	_____
18. AESTHETICS. Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?	_____	<u>X</u>	_____
19. RECREATION. Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?	_____	<u>X</u>	_____

	Yes	Maybe	No
20. CULTURAL RESOURCES. Will the project result in:			
a. The alteration of or the destruction of a prehistoric or historic archaeological site?	<u> X </u>	<u> </u>	<u> </u>
b. In adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?	<u> X </u>	<u> </u>	<u> </u>
c. Have the potential to cause a physical change which would affect unique ethnic cultural values?	<u> X </u>	<u> </u>	<u> </u>
d. Restriction of existing religious or sacred uses within the potential impact?	<u> X </u>	<u> </u>	<u> </u>
21. MANDATORY FINDINGS OF SIGNIFICANCE.			
a. Does the project have the potential to degrade the quality of the environment substantially, the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<u> X </u>	<u> </u>	<u> </u>
b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.	<u> </u>	<u> X </u>	<u> </u>
c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant).	<u> X </u>	<u> </u>	<u> </u>
d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<u> </u>	<u> X </u>	<u> </u>

III. Discussion of Environmental Evaluation.

See the attached Environmental Evaluation Discussion

IV. Determination.

(To be completed by the Lead Agency)

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐

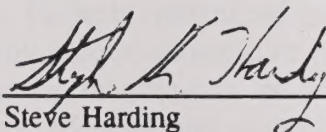
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION WILL BE PREPARED.

☐

I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☒

Date: 7-8-92



Steve Harding
Planning Director
CITY OF MURRIETA

III. Discussion of Environmental Evaluation

An EIR will be prepared to assess the environmental impacts resulting from preparation of the City of Murrieta General Plan. Following is a list of potential areas of impacts that will be examined. The EIR analysis may result in a change in emphasis in one or more of the items listed below, and additional items may be identified. Mitigation measures will be developed and described in the Draft EIR.

1. Earth.

- a. **Maybe.** Construction for new development occurring under the proposed General Plan could result in unstable earth conditions due to grading and excavations for formation of building pads and roadbases. The EIR for the General Plan will assess the adequacy of proposed General Plan policies addressing seismic safety, and identify any unique issues that need to be addressed in the City's Building Code. Additional policies or mitigation measures will be provided as needed to eliminate avoidable environmental impacts.
- b.& c **Yes.** Projects constructed under the proposed General Plan which involve site preparation and excavation could result in changes to existing topography, and the displacement, compaction, and over-covering of existing soils. Any geologic impacts that may result from grading and building on expansive soils will be fully addressed in the EIR.
- d. **Maybe.** Projects constructed under the proposed General Plan may alter, modify, or destroy unique geologic or physical features in the City. The EIR will verify the absence or presence of any unique geologic or physical features, and if necessary, identify and quantify proposed General Plan land uses and policies which could cause the destruction or modification of such features.
- e. **Yes.** Site preparation associated with new development may cause soil erosion from wind and rain. The potential for soil erosion with development in the City's hillside areas will be of particular concern. The geology section of the EIR will evaluate the potential for soil erosion within the City. If necessary mitigation measures or additional General Plan policies will be recommended to ensure that impacts from erosion are reduced to the degree feasible.
- f. **Yes.** Murrieta Creek, Warm Springs Creek, and other tributaries that pass through the City may be altered by development or significantly affected by deposition, siltation, or erosion. The EIR will identify and quantify potential effects of the General Plan on Murrieta Creek, Warm Springs Creek, and their tributaries. Mitigation will be provided as necessary to protect the integrity of these watercourses and to avoid impacts that could occur in the City and downstream. As the City is not located along the coast, the project will not cause the erosion of beach sand.

- g. **Yes.** The City of Murrieta is located in a region of historic seismicity. The dominant structural feature in the area is the northwest-striking Elsinor Fault Zone which separates the Perris Block along its eastern side from the Santa Ana Mountains on its western side. A segment of the Elsinor Fault Zone, the potentially active Wildomar Fault (Hart, 1985) is located on the east side of the Elsinor Trough and crosses the western portion of the City. This fault and adjacent areas of the City are presently included within the Alquist-Priolo Special Studies Zone (1972, revised 1985). The western side of the Elsinor Trough, known as the Willard Fault is not classified as active by either the State or the County and is not currently located within a Special Studies Zone for active faulting. The City's hillside areas have the potential for seismically induced landslides and mudslides.

Depth to ground water and the character of the soils within areas of the City create the potential for liquefaction occurring during an earthquake. These areas of the City have been included in a Riverside County liquefaction hazard area. Additionally, ground fissuring and subsidence has occurred in adjacent areas of Temecula and the potential for fissuring exists in the southern portion of the City. This area of the City has been zoned by Riverside County as a subsidence report zone. A thorough evaluation of these issues and the adequacy of the proposed General Plan to reduce exposure of people and property to geologic hazards will be provided in the EIR.

2. Air.

- a. **Yes.** Construction occurring under the proposed General Plan may create the potential for high levels of dust and particulate matter in the air on a short-term basis. New development occurring under the proposed General Plan would increase traffic, causing an increase in air emissions, which would contribute to the deterioration of ambient air quality. General Plan policies, land use designations, and cumulative impacts will be evaluated in the EIR, emphasizing compliance with the South Coast Air Quality Management District's Air Quality Management Plan and other District requirements. The EIR will also identify and quantify short-term and long-term air quality impacts associated with build-out of the proposed General Plan. If mitigation measures or additional General Plan policies are necessary, they will be included in the EIR to support attainment of federal and State air quality standards.
- b. **Maybe.** Potential changes in land use patterns may expose people to objectionable odors generated from industries located in the City. The EIR will identify any significant existing problems and analyze proposed changes in land use that could increase the exposure of people to objectionable odors caused by industry.
- c. **No.** The proposed General Plan would not result in the alteration of air movements or climatic conditions.

3. Water.

- a. **Yes.** Proposed General Plan land use designations and development that may occur under the proposed General Plan could alter the directions of water movement in Murrieta Creek, Warm Springs Creek, and their tributaries. The likelihood for such an occurrence will be analyzed, and, if the potential for impacts on water movement are identified, mitigation measures or General Plan policies will be provided to avoid or offset those impacts.
- b. **Yes.** The placement of structures, driveways, parking areas, and other impervious surfaces would decrease soil absorption rates and increase drainage. Development may also result in an increase in dry season base flow resulting from landscape irrigation runoff. The EIR hydrological analyses will identify and quantify proposed changes to the General Plan that would result in adverse effects on absorption rates, drainage patterns, and or the rate and amount of surface runoff.
- c. **Maybe.** Flood hazard maps for the region are prepared by the Federal Emergency Management Agency (FEMA). Portions of the City are located within the 100-year flood zone associated with Murrieta Creek and Warm Springs Creek, and the City has a history of flood problems. In the event of failure at Skinner dam, flood waters moving down Santa Gertrudis Creek could cause flooding in the extreme southern portion of the City. The storm drainage system for the City is not fully developed, and as a result localized flooding does occur in a number of areas. Land use patterns proposed in the General Plan will influence the degree of risk from flood hazard in the City. Murrieta is located far enough inland to be outside of any designated tsunami hazard area. The hydrology analysis in the EIR will identify and quantify existing flood hazards in the City and constraints in the City's storm drain system. The Land Use Element and other related elements will be evaluated under buildout conditions to assess flood hazards. For identified impacts, additional General Plan policies or mitigation measures will be provided to reduce risks associated with flooding.
- d. **Maybe.** The proposed General Plan could create the potential for modification of Murrieta Creek, Warm Springs Creek, and their tributaries. This in combination with increases in surface water runoff with new development could increase the amount of surface water in these creeks. Changes in the amount of surface water runoff and potential impacts on these drainages will be identified and quantified in the EIR under a buildout scenario for the proposed General Plan.
- e. **Maybe.** Potential increases in the concentrations of pollutants (heavy metals such as lead and zinc), total dissolved solids (TDS), and nitrates, may alter the quality of surface waters within the City as new development occurs. Potentially significant effects on surface water quality resulting from the proposed General Plan will be assessed in the EIR. Additional policies or mitigation will be provided as required to eliminate or reduce impacts on surface water quality.

- f. **No.** Dewatering is not expected to be required for grading or construction within the City, and irrigation in the City is not expected to cause a rise in the water table that would affect direction of ground water flow.
- g. **Maybe.** Ground water additions or withdrawals that could occur under the proposed General Plan would have the potential to increase or decrease the amount of groundwater through direct additions or withdrawals. Additionally, non-point sources of water pollution such as, runoff from paved surfaces, grading, construction, and agricultural activities could impact the quantity and quality of ground waters within the Murrieta-Temecula groundwater basin. The EIR will analyze potential impacts on the quantity and quality of groundwater resources and if necessary provide additional general plan policies or mitigation measures to reduce impacts on groundwater.
- h. **Maybe.** Development that may occur under the proposed General Plan could impact public water reservoirs, either ground or surface, potentially reducing the amount of water available for public water supplies. The EIR for the project will identify water sources for the City, the demand for water resulting from development allowed under the proposed General Plan, and any significant impacts on public water supplies.
- i. **Yes.** As indicated in the preceding discussion for III. c, portions of the City are located within both the 100-year flood zone associated with Murrieta and Warm Springs Creeks, and a small portion of the City is located within a potential inundation area of Skinner Dam. Additionally, the City's storm drainage system occasionally results in localized flooding. The hydrology analysis in the EIR will identify flood hazard constraints on areas within the City, and the need for policies or mitigation to reduce risks to people and property associated with flooding.

4. Plant Life.

- a. **Yes.** Numerous plant communities of special interest occur in Murrieta and the surrounding area. Communities of concern include: native grassland; sage scrub, alluvial fan sage scrub; alkali sink scrub; alkali meadows; alkali and freshwater seeps; freshwater marsh; vernal pools; a variety of riparian communities, and coast live oak and Engelman oak woodlands. With substantial areas of the City undeveloped, the proposed General Plan could affect these plant communities and the diversity and number of plant species in the City. In order to assess impacts on plant life, the EIR will identify and quantify the major plant communities and rare plant species that occur or potentially occur in the City. Impacts on plant life that would potentially occur with implementation of the General Plan will be discussed, and mitigation measures or additional policies will be recommended.
- b. **Yes.** A number of sensitive plant species and sensitive plant communities are known to occur in the City and surrounding area, including rare, threatened, and endangered species. Potential impacts on sensitive plant species associated with General Plan implementation will be analyzed in the EIR.

- c. **Yes.** New projects incorporating ornamental landscaped areas may introduce new species which were not present in the City prior to project development. These introduced plant species may spread into areas of native plant habitat, which could present a barrier to the normal replenishment of existing species.
- d. **Maybe.** A substantial area of the City is designated by the Riverside County General Plan Agricultural map as Local Important Farmland, and areas of the City are being used for agriculture. Local Important Farmlands are considered to have significant local economic importance. Changes in land use proposed in the General Plan could reduce the acreage of Local Important Farmlands and agricultural crops in the City. The EIR will analyze impacts on agricultural resources with consideration of short- and long-term local and regional economic effects, and land use compatibility. Impacts on agriculture will be assessed in the EIR under sections on plant life and land use.

5. Animal Life.

- All **Yes.** In general, significant portions of the City serve as habitat for a number of birds, reptiles, amphibians and mammals. Several sensitive animal species potentially occur or are known to occur in the City. A few of the more notable species include: Stephens' kangaroo rat, the Golden Eagle, the California gnatcatcher, and Least Bell's vireo. Development occurring under the proposed General Plan could affect areas of natural habitat potentially reducing the number and diversity of animal species found in the area. Indirect impacts associated with noise, sedimentation, and domestic pets would occur with the increasing proximity of new residential and other land use development. The biology analysis will be supplemented by existing biological studies conducted in the area. The California Department of Fish and Game, Army Corp of Engineers, and the U.S. Fish and Wildlife Service will be consulted to ensure that the analysis responds to their concerns about potential project impacts and appropriate mitigation measures. Fish and Wildlife Service will be consulted.

6. Noise.

- All **Yes.** Increases in automotive traffic and changes in traffic patterns resulting from development under the proposed General Plan would increase existing noise levels. In addition to noise from automotive traffic, construction activities and other mobile and stationary noise sources could expose people to severe noise levels. The EIR will identify and quantify increases in noise from mobile and stationary sources. Furthermore, the EIR will evaluate the General Plan for land use compatibility and the adequacy of policies addressing noise. Where policies addressing noise do not sufficiently mitigate identified noise impacts, additional policies or mitigation measures will be suggested to ensure that City residents are not exposed to severe noise levels.

7. Light and Glare.

Yes. Development occurring under the proposed General Plan would result in increased light and glare from new sources of interior and exterior lighting. Exterior lighting for security, visibility, and signage would cause increases in nighttime illumination that could potentially affect light sensitive receptors (i.e. residential uses and wildlife habitat). Special consideration will also be given in the EIR to potential impacts on the Mount Palomar Observatory and to conformance with related Riverside County Ordinance No. 655. If not carefully considered, building materials associated with new development could result in reflective glare which could present a nuisance to residents or a safety hazard to motorists traveling in or through the City. The EIR will evaluate changes in land use and general plan policies to insure that adequate provisions are made to prevent undue impacts from light and glare.

8. Land Use.

Yes. Changes in land use that may result with revisions to the General Plan could alter present and planned land uses in the City. While the degree and specifics of these changes are not known at this time, the EIR will thoroughly evaluate the impacts of changes to the General Plan for physical and functional land use compatibility and for consistency with local and regional plans.

9. Natural Resources.

All **Maybe.** Changes to the General Plan may result in an increase in the rate of use of natural resources, specifically water, mineral resources, wildlife or vegetation. The EIR will evaluate any identified significant impacts on such resources as may result from revisions to the General Plan.

10. Risk of Upset.

- a.** **Maybe.** Revisions to the General Plan may increase the risk of human upset from industries using flammable, hazardous or toxic materials within the City. The significance of these risks and risks associated with the transport of such materials will be assessed in the EIR.
- b.** **Maybe.** The City's proposed land use plan, circulation master plan, and General Plan policies could interfere with emergency response or emergency evacuation. An assessment of the adequacy of emergency response and evacuation plans and potential impacts on these plans will be assessed in the EIR.

11. Population

Maybe. The population of the City may increase substantially under the Proposed General Plan. This potential increase in population and associated increases in local traffic would increase demand for fire and police services, park, school and library services, and for the utilities provided to the City. Increases in population allowed under the proposed General Plan will be quantified and analyzed identifying impacts at the local and regional level.

12. Housing

Yes. Changes in General Plan land use designations may alter the demand for housing within Murrieta and in surrounding cities and unincorporated County areas. The EIR will assess jobs and housing relative to the jobs/housing balance strategy outlined in the South Coast Air Basin Air Quality Management Plan, and the SCAG Regional Growth Management Plan.

13. Transportation/Circulation

- a & b. **Yes.** Development within the City has the potential to affect traffic flow and circulation both locally and regionally. Development could impact existing traffic volumes, turning movements, travel speeds, and the levels of service of roadways and intersections. Impacts on traffic, parking, circulation and project consistency with the Riverside County Congestion Management Program will be addressed in the EIR.
- c & d. **Yes.** Within the City, segments of many arterials are undeveloped, undersized, and/or congested. An increase in vehicle trips to and from the City has the potential to impact local streets, and regional road networks and freeways such as Interstate 15, Interstate 215, and State Highway 79 (Winchester Road). Project generated vehicle trips may also place demands on regional public transit routes, schedules and frequency. The impact on these existing transportation systems and the resultant alteration of present patterns of circulation will be identified and quantified in the EIR.
- e. **No.** There are no railroad lines or public airports in the City and proposed land uses would not alter rail, waterborne, or air traffic.
- f. **Yes.** Any alteration of traffic flow or increase in traffic generation has the potential to increase traffic hazards for motor vehicles, bicyclists, pedestrians, and equestrians. The EIR will assess the need for turn-lanes, crosswalks, bicycle lanes, horse trails and other measures which can reduce traffic hazards.

14. Public Services

- a-e.** **Yes.** The proposed project could increase demand for public services. Public services including fire and police protection, schools, parks/recreation, and associated maintenance requirements may be effected. Impacts on these existing public services, and the need for new or altered services will be identified and quantified in the EIR.
- f.** **Maybe.** The proposed project may have an impact on other public facilities, such as libraries, which have not been identified in 14(a) to (e). Any significant impacts on library or other governmental services will be identified and described in the EIR.

15. Energy.

- All** **Maybe.** Changes in land use could cause substantial increases in energy consumption, potentially requiring development of new sources of energy. Increases in energy consumption and impacts on energy sources resulting from buildout of proposed land uses will be evaluated in the EIR.

16. Utilities

- All** **Maybe.** Increases in population under the proposed General Plan could increase demand on existing electrical and natural gas supplies, communication services, water distribution, sanitary sewer, and stormwater drainage systems within the City. New development occurring under the proposed General Plan and the potential alteration of existing land use patterns will require construction of new utility infrastructure and modification to existing infrastructure. Increases in solid waste generation would place new demands on regional landfills. The impacts of increased demands on utility infrastructure and on the ability of the providers to deliver utility services will be identified and quantified in the EIR based on buildout of the proposed General Plan.

17. Human Health

- a.** **Maybe.** Changes in land use may result in the exposure of people to potential health hazards due to inappropriate siting of land uses or circulation routes. The magnitude of health hazards potentially resulting from existing and proposed land use designations will be addressed in the EIR.
- b.** **Maybe.** Residents may be exposed to potential health hazards if appropriate safeguards are not taken. The EIR will address the adequacy of the General Plan to prevent potential hazards to human health, and will provide additional policies or mitigation measures as required.

18. Aesthetics

Maybe. Murrieta is located in the Temecula Valley region and is surrounded by rolling hillsides and steep mountain slopes. The Santa Rosa Plateau and Santa Ana Mountains located immediately to the west are dominant and significant visual features that contribute to the City's scenic quality. Other mountain ranges that are visible from the City include the Santa Margarita and Agua Tibia ranges to the south, and the San Jacinto ranges to the east. The significance of these scenic resources have initiated an effort to designate Interstate 215 as a scenic highway. The City's approach to hillside development, the location and intensity of proposed land uses, and proposed policies in the General Plan could alter existing views and scenic resources, and the aesthetic character of the City. The potential for, and degree of these impacts will be stated in the EIR along with any necessary General Plan policies or mitigation measures.

19. Recreation

Maybe. Future recreational opportunities within the City will be affected by the proposed General Plan. The EIR will assess the quantity and quality of recreational opportunities currently available to City residents, and the impact of the General Plan on the provision of parks and recreation. If, based on community input and accepted standards, recreational opportunities are inadequate, additional General Plan policies and mitigation measures will be suggested in the EIR.

20. Cultural Resources

- All. **Yes.** Due to a long history of human occupation, a large number of archaeological sites have been recorded within the City. The Murrieta area also rests on highly fossiliferous rock units which have yielded numerous paleontologic localities and a remarkable collection of fossil vertebrates. Portions of the City have been mapped by Riverside County as having high sensitivity for both archaeological and paleontological resources. Structures of historic significance may also exist in the City. Development occurring under the proposed General Plan has the potential to impact unidentified archaeological and paleontological sites through compaction, filling from rough grading, and from increased erosion and vibration during heavy grading. Known or suspected cultural resources in the City and areas of high resource sensitivity will be identified in the EIR, and potential impacts from ground disturbing activities will be assessed.

21. Mandatory Findings of Significance

- a. **Yes.** The project has the potential to degrade the quality of the environment, through wind and water erosion from construction activities, and through possible increases in air pollution and noise from transportation sources.

- b. **Maybe.** Changes to the General Plan have the potential to achieve the short-term goals of the City but could also impact the long-term viability of the City. Possible short-term impacts which may be to the disadvantage of long-term environmental goals in the region will be evaluated within the EIR.
- c. **Yes.** The project may have significant impacts in areas of geology, soils, air, water, plant and animal life, noise, light and glare, land use, housing, transportation, and public services. These individual impacts may have cumulative considerable impacts on development within the South West Riverside County region in the long-term. The significance of cumulative impacts will be determined in the EIR.
- d. **Maybe.** The potential for the General Plan revisions to have direct and indirect adverse effects on human beings will be identified and discussed within the EIR.

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH

1400 TENTH STREET
SACRAMENTO, CA 95814

CITY OF MURRIETA

JUL 17 1992

RECEIVED
PLANNING DEPT.

DATE: Jul 15, 1992

TO: Reviewing Agency

RE: CITY OF MURRIETA's NOP for
MURRIETA GENERAL PLAN
SCH # 92072047

Attached for your comment is the CITY OF MURRIETA's Notice of Preparation of a draft Environmental Impact Report (EIR) for the MURRIETA GENERAL PLAN.

Responsible agencies must transmit their concerns and comments on the scope and content of the EIR, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of this notice. We encourage commenting agencies to respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

STEVE HARDING
CITY OF MURRIETA
26442 BECKMAN COURT
MURRIETA, CA 92562

with a copy to the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the review process, call Russell Colliau at (916) 445-0613.

Sincerely,

A handwritten signature in cursive script that reads "Christine Kinne".

Christine Kinne
Acting Deputy Director, Permit Assistance

Attachments

cc: Lead Agency

NOP Distribution List

S = sent by lead agency

X = sent by SCH

Resources Agency

☐ Judy Carpenter
Dept. of Boating & Waterways
1629 S Street
Sacramento, CA 95814
916/445-6281

☐ Gary L. Holloway
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219
415/904-5200

☐ Reed Holderman
State Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, CA 94612
510/464-1015

☒ Steve Oliva
Dept. of Conservation
801 K Street, MS-24-02
Sacramento, CA 95814
916/445-8733

☐ Div. of Mines and Geology

☐ Div. of Oil and Gas

☐ Land Resources Protect. Unit

☒ Douglas Wicklizer
Dept. of Forestry
1416 Ninth Street, Room 1516-2
Sacramento, CA 95814
916/653-9451

☒ Hans Kreutzberg
Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001
916/653-9107

☐ Mike Doyle
Dept. of Parks and Recreation
P.O. Box 942896
Sacramento, CA 94296-0001
916/653-0547

☐ Anna Leena Bronson
Reclamation Board
1416 Ninth Street Room 706
Sacramento, CA 95814
916/653-9669

☐ Nancy Wakeman
S.F. Bay Conservation & Dev't. Comm.
30 Van Ness Avenue, Room 2011
San Francisco, CA 94102
415/557-3686

☐ Nadell Gayou
Dept. of Water Resources
1416 Ninth Street, Room 449
Sacramento, CA 95814
916/653-6866

Fish and Game - Regional Offices

☐ Gary Stacey, Regional Manager
Department of Fish and Game
601 Locust
Redding, CA 96001
916/225-2300 (8-442)

☐ Jim Messersmith, Regional Manager
Department of Fish & Game
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670
916/355-0922 (8-438)

☐ B. Hunter, Regional Manager
Department of Fish and Game
P.O. Box 47
Yountville, CA 94599
707/944-5518

☐ G. Nokes, Regional Manager
Department of Fish and Game
1234 East Shaw Avenue
Fresno, CA 93710
209/222-3761 (8-421)

☒ Fred A. Worthley, Jr., Reg. Manager
Department of Fish and Game
330 Golden Shore, Suite 50
Long Beach, CA 90802
213/590-5113 (8-635)

Independent Commissions

☐ John R. Nuffer
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814
916/654-3859

☒ William A. Johnson
Native American Heritage Comm.
915 Capitol Mall, Room 288
Sacramento, CA 95814
916/653-4082

☐ William Meyer
Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
415/703-1540 (8-597)

☐ Betty Eubanks
State Lands Commission
1807 - 13th Street
Sacramento, CA 95814
916/322-2795

Business, Transportation, & Housing

☐ Sandy Hennard
Caltrans - Division of Aeronautics
P.O. Box 942874
Sacramento, CA 94274-0001
916/324-1833

☐ Tom Micono
California Highway Patrol
Office of Special Projects
Planning and Analysis Division
2555 First Avenue
Sacramento, CA 95818
916/437-7222

☐ Ron Helgason
Caltrans - Planning
P.O. Box 942874
Sacramento, CA 94274-0001
916/445-5570

Department of Transportation District Contacts

☐ Guy Luther
Caltrans, District 1
1656 Union Street
Eureka, CA 95501
707/445-6407

☐ Michelle Gallagher
Caltrans, District 2
P.O. Box 494040
Redding, CA 96049-4040
916/225-3259 (8-442)

☐ Jody Lonergan
Caltrans, District 3
703 B Street
Marysville, CA 95901
916/741-4277 (8-457)

☐ Gary S. Adams
Caltrans, District 4
P.O. Box 7310
San Francisco, CA 94120
415/557-9162 (8-597)

☐ Wayne Schnell
Caltrans, District 5
P.O. Box 8114
San Luis Obispo, CA 93403-8114
805/549-3683 (8-629)

☐ Moses Pacheco
Caltrans, District 6
P.O. Box 12616
Fresno, CA 93778
209/276-5989 (8-422)

☐ Gary McSweeney
Caltrans, District 7
120 South Spring Street
Los Angeles, CA 90012
213/620-2376 (8-640)

☐ Harvey Sawyer
Caltrans, District 8
P.O. Box 231
San Bernardino, CA 92402
714/383-4808 (8-670)

☐ Lisa Flores
Caltrans, District 9
500 South Main Street
Bishop, CA 93514
619/872-0203 (8-627)

☐ Al Johnson
Caltrans, District 10
P.O. Box 2048
Stockton, CA 95201
209/948-7838 (8-423)

☒ Mike Owen
Caltrans, District 11
P.O. Box 85406
2829 Juan Street
San Diego, CA 92186-5406
619/688-6750 (8-631)

☐ Aileen Kennedy
Caltrans, District 12
2501 Pullman St.
Santa Ana, CA 92705
714/724-2239 (8-655)

Food and Agriculture

☒ Vashek Cervinka
Dept. of Food and Agriculture
1220 N Street
Sacramento, CA 95814
916/322-5227

Health & Welfare

☐ Quy Tu
Dept. of Health
601 N. 7th Street, PO Box 942732
Sacramento, CA 94234-7320
916/323-6111

☐ DISTSCD: _____

State and Consumer Services

☐ Robert Steppy
Dept. of General Services
400 P Street, Suite 5100
Sacramento, CA 95814
916/324-0214

Environmental Affairs

☐ Barbara Fry
Air Resources Board
2020 L Street
Sacramento, CA 95815
916/322-8267

☐ Jeanie Agpoon
Calif. Waste Management Board
8800 Cal Center Drive
Sacramento, CA 95826
916/255-2439 916/255-2341

State Water Resources Control Board

☐ Allan Patton
State Water Resources Control Board
Division of Clean Water Programs
P.O. Box 944212
Sacramento, CA 94244-2120
916/739-4265

☐ Dave Beringer
State Water Resources Control Board
Delta Unit
P.O. Box 2000
Sacramento, CA 95812-2000
916/322-9870

☐ Phil Zentner
State Water Resources Control Board
Division of Water Quality
P.O. Box 100
Sacramento, CA 95801
916/657-0912

☐ Mike Falkenstein
State Water Resources Control Board
Division of Water Rights
901 P Street, 3rd Floor
Sacramento, CA 95814
916/657-1377 (8-437)

☐ APCD/AQMD: _____

SCH# 92072017

Regional Water Quality Control Board

☐ NORTH COAST REGION (1)
1440 Quernville Rd.
Santa Rosa, CA 95401
707/576-2220 (8-590)

☐ SAN FRANCISCO BAY REGION
(2)
2101 Webster, Suite 500
Oakland, CA 94612
415/464-1255 (8-561)

☐ CENTRAL COAST REGION (3)
81 Higgins Street, Suite 200
San Luis Obispo, CA 93401-5427
805/549-3147 (8-629)

☐ LOS ANGELES REGION (4)
1075 S. Broadway, Rm. 4027
Los Angeles, CA 90012
213/266-4460 (8-640)

☐ CENTRAL VALLEY REGION (5)
3443 Rautier Road, Suite A
Sacramento, CA 95827-3098
916/361-5600

☐ Fresno Branch Office
3614 East Ashlan Avenue
Fresno, CA 93726
209/445-5116 (8-421)

☐ Redding Branch Office
415 Knollcrest Drive
Redding, CA 96002
916/224-4845 (ATS 441)

☐ LAHONTAN REGION (6)
2092 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150
916/544-3481

☐ Victorville Branch Office
15428 Civic Drive, Suite 100
Victorville, CA 92392-2359
619/241-6583

☒ COLORADO RIVER BASIN
REGION (7)
73-271 Highway 111, Suite 21
Palm Desert, CA 92260
619/346-7491

☐ SANTA ANA REGION (8)
2010 Iowa Avenue, Suite 100
Riverside, CA 92507
714/782-4130 (8-632)

☐ SAN DIEGO REGION (9)
9771 Clairemont Mesa Blvd., Suite B
San Diego, CA 92124-1331
619/265-5114 (8-636)

OTHER: _____

OTHER: _____



United States
Department of
Agriculture

Soil
Conservation
Service

2023 Chicago Ave., B-14
Riverside, CA 92507
Phone: (714) 684-1552

FILED

CITY OF MURRIETA

July 16, 1992

JUL 17 1992

RECEIVED
PLANNING DEPT.

Stephen Harding
Planning Director
City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

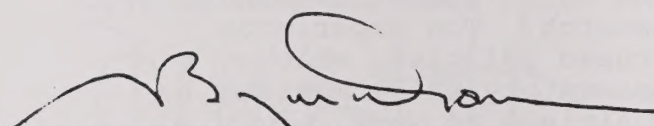
Re: City of Murrieta General Plan

Dear Mr. Harding:

We acknowledge receipt of the Notice of the Preparation of a General Plan and Environmental Impact Report for the City of Murrieta General Plan in Riverside County, California that was addressed to the USDA-Soil Conservation Service and the Riverside-Corona Resource Conservation District on July 15, 1992 for review and comment.

The area of study falls within the jurisdiction of the Elsinore-Murrieta-Anza Resource Conservation District. This Notice of Preparation has been sent to our Soil Conservation Service office at 711C West Esplanade, San Jacinto, California.

Sincerely,



R. BENJAMIN WAGONER
District Conservationist



The Soil Conservation Service
is an agency of the
United States Department of Agriculture



CALIFORNIA INSTITUTE OF TECHNOLOGY

OFFICE OF THE DIRECTOR PALOMAR OBSERVATORY 105-24

CITY OF MURRIETA

July 14, 1992

JUL 17 1992

RECEIVED
PLANNING DEPT.

Mr. Stephen Harding
Planning Director
City of Murrieta
26442 Beckman Court
Murrieta, California 92562

Dear Mr. Harding:

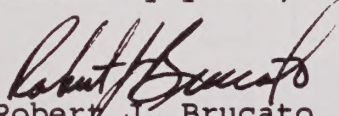
This is in response to your Notice of Preparation of a General Plan for the City of Murrieta.

I am pleased to see light and glare explicitly identified as environmental issues to be evaluated and, in the discussion for Item 7 (page iv), reference to the need to conform to Riverside County Ordinance 655 as one part of the effort to protect the Palomar Observatory from light pollution. There is a second important part, however, not covered by the ordinance and not mentioned in the Notice; that is the use of low-pressure sodium (LPS) lights for street lighting.

The LPS street lighting policy and the control of other forms of lighting that have been adopted by many of the communities in San Diego and western Riverside Counties are essential to ensure the future of the Palomar Observatory, which is one of the world's most powerful facilities for astronomical research. The experience over the past ten years shows these policies, which were crafted to protect the Observatory while meeting the lighting needs of the communities, do work.

I hope you find these remarks useful to the preparation of the Murrieta General Plan. Please call me if you have any questions.

Sincerely yours,


Robert J. Brucato
Assistant Director

RJB:pc

cc: H. Daily



City of Lake Elsinore

July 17, 1992

Mr. Stephen Harding
Planning Director
Planning Department
City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

SUBJECT: CITY OF MURRIETA GENERAL PLAN EIR

Dear Mr. Harding:

We appreciate receipt of the Notice of Preparation for your General Plan EIR. Your study area boundaries do not encroach into Lake Elsinore's Sphere of Influence and therefore, we do not have many comments. However, we request that the EIR address Murrieta destination traffic which may traverse through Lake Elsinore.

We also request that a copy of the Draft EIR be sent to us upon its completion. Thank you for this opportunity to comment.

Sincerely,

CITY OF LAKE ELSINORE

Duane Morita
Senior Planner

CITY OF MURRIETA

JUL 20 1992

RECEIVED
PLANNING DEPT.

DEPARTMENT OF FISH AND GAME
330 Golden Shore, Suite 50
Long Beach, California 90802
(310) 590-5113

CITY OF MURRIETA



JUL 30 1992

RECEIVED
PLANNING DEPT.

July 24, 1992

Mr. Stephen Harding
Planning Director
City of Murrieta
26442 Beckman Court
Murrieta, California 92562

Dear Mr. Harding:

Notice of Preparation for City of Murrieta General Plan
Riverside County

To enable our staff to adequately review and comment on subject project, we recommend the following information be included in the Draft Environmental Impact Report:

1. A complete assessment of flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened and locally unique species and sensitive and critical habitats.
2. A discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts.
3. A discussion of potential adverse impacts from any increased runoff, sedimentation, soil erosion, and/or urban pollutants on streams and watercourses on or near the project site, with mitigation measures proposed to alleviate such impacts. Stream buffer areas and maintenance in their natural condition through non-structural flood control methods should also be considered in order to continue their high value as wildlife corridors.

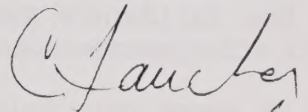
More generally, there should be discussion of alternatives to not only minimize adverse impacts to wildlife, but to include direct benefit to wildlife and wildlife habitat. Those discussions should consider the Department of Fish and Game's policy that there should be no net loss of wetland acreage or habitat values. We oppose projects which do not provide adequate mitigation for such losses.

Mr. Stephen Harding
July 24, 1992
Page Two

Diversion, obstruction of the natural flow, or changes in the bed, channel, or bank of any river, stream, or lake will require notification to the Department of Fish and Game as called for in the Fish and Game Code. Notification should be made after the project is approved by the lead agency.

Thank you for the opportunity to review and comment on this project. If you have any questions, please contact Mr. Curt Taucher at (310) 590-5137.

Sincerely,

A handwritten signature in cursive script, appearing to read "C. Taucher" or similar, written in dark ink.

Fred Worthley
Regional Manager
Region 5

cc: Office of Planning & Research

The Gas Company



August 3, 1992

City of Murrieta
26442 Beckman Court
Murriets, CA 92562

ATTENTION: Stephen Harding - Planning Director

RE: City of Murrieta General Plan

This letter is to inform you that Southern California Gas company has facilities in the area where the above named project is proposed. Gas service to the project could be provided from Various Locations without any significant impact on the environment. The service would be in accordance with the Company's policies and extension rules on file with the California Public Utilities Commission at the time contractual arrangements are made.

You should be aware that this letter is not to be interpreted as a contractual commitment to serve the proposed project, but only as an informational service. The availability of natural gas service, as set forth in this letter, is based upon present conditions of gas supply and regulatory policies. As a public utility, the Southern California Gas Company is under the jurisdiction of the California Public Utilities Commission. We can also be affected by actions of federal regulatory agencies. Should these agencies take any action which affects gas supply or the conditions under which service is available, gas service will be provided in accordance with revised conditions.

Typical demand use for:

a. Residential (System Area Average/Use Per Meter) Yearly

Single Family	799 therms/year dwelling unit
Multi-Family 4 or less units	482 therms/year dwelling unit
Multi-Family 5 or more units	483 therms/year dwelling unit

These averages are based on total gas consumption in residential units served by Southern California Gas Company, and it should not be implied that any particular home, apartment or tract of homes will use these amounts of energy.

b. Commercial

Due to the fact that construction varies so widely (a glass building vs. a heavily insulated building) and there is such a wide variation in types of materials and equipment used, a typical demand figure is not available for this type of construction. Calculations would need to be made after the building has been designed.

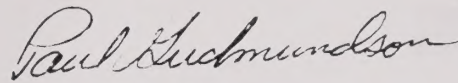
Southern California
Gas Company

1981 Lugonia Avenue
Redlands, CA

Mailing Address:
Box 3003
Redlands, CA
92373-0306

We have developed several programs which are available, upon request, to provide assistance in selecting the most effective applications of energy conservation techniques for a particular project. If you desire further information on any of our energy conservation programs, please contact our Marketing Department, phone 1-800-842-7758.

Sincerely,

A handwritten signature in cursive script that reads "Paul Gudmundson".

Paul Gudmundson
Technical Supervisor

PG/blh

cc: Environ Affairs -ML209B



FRANKLIN E. SHERKOW
Director of Transportation

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT

PLANNING AND DEVELOPMENT REVIEW DIVISION

CITY OF MURRIETA

AUG 10 1992

RECEIVED
PLANNING DEPT.

August 5, 1992

Stephen Harding
Planning Director
City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

**RE: NOTICE OF PREPARATION OF A GENERAL PLAN AND DRAFT
ENVIRONMENTAL IMPACT REPORT FOR THE CITY OF MURRIETA**

Dear Mr. Harding:

Thank you for the Notice of Preparation of a General Plan and Draft Environmental Impact Report (EIR) that is being prepared by your agency.

Our main concern at this time would be that any potential impacts to County maintained roads be avoided or be properly discussed and mitigated in the Draft EIR. Therefore, the Riverside County Transportation Department would like to receive a copy of the Draft EIR upon circulation.

Relative to the General Plan, we recommend coordination of the Circulation Element between the City and County. We would like to request that we receive a copy of the General Plan and related elements upon completion.

If you have questions, please feel free to contact Martha Tarlton, Senior Transportation Planner, at (714) 275-6772 or Sian Roman, Planner III, at (714) 275-6874.

Sincerely,

Ed Studor
Transportation Planning Manager

ES:SR:mw





**South Coast
AIR QUALITY MANAGEMENT DISTRICT**

21865 E. Copley Drive, Diamond Bar, CA 91765-4182 (714) 396-2000

CITY OF MURRIETA

AUG 10 1992

RECEIVED
PLANNING DEPT.

August 5, 1992

Mr. Stephen Harding
Planning Director
City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

Dear Mr. Harding:

**Subject: Notice of Preparation of a Draft Environmental Impact Report for
the City of Murrieta General Plan**

SCAQMD# RVC920724-03

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the Notice of Preparation for a Draft EIR for the City of Murrieta General Plan. SCAQMD is responsible for adopting, implementing, and enforcing air quality regulations in the South Coast Air Quality Management District, which includes the project location. As a responsible agency, SCAQMD reviews and analyzes environmental documents for projects that may generate significant adverse air quality impacts. In this capacity, SCAQMD advises lead agencies in addressing and mitigating the potential adverse air quality impacts caused by projects.

To assist the Lead Agency in the preparation of the air quality analysis for the EIR the following is a summarization for evaluating air quality impacts.

Baseline Information: Describe existing climate and air quality of the region and study area from the District Monitoring station located in the project source receptor area.

Identify and quantify all project Emission Sources.

Compare and assess anticipated project emissions with the District's Thresholds of Significance and the existing air quality of the region and study area.

Identify and assess Toxic Source Emissions within the study area.

Assess Cumulative Air Quality Impacts from the regional area.

Assess Consistency of the General Plan with the AQMP.

August 5, 1992

Identify and quantify **Project Alternatives** that may attain goals of the project with substantially fewer or less significant impacts.

Identify **Mitigation Measures** necessary to reduce air quality impacts substantially.

For additional information please refer to the District's Air Quality Handbook for Preparing Environmental Impact Reports to assess and mitigate adverse air quality impacts. Attached is a list of potential policies and strategies to reduce air quality impacts if incorporated into the General Plan.

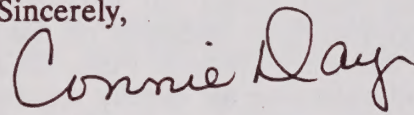
Upon completion of the Draft Environmental Impact Report, please forward two copies to:

Office of Planning & Rules
South Coast Air Quality Management District
21865 Copley Drive
P O Box 4939
Diamond Bar CA 91765-0939

Attn: Local Government - CEQA

If you have any questions, please call me at (714) 396-3055

Sincerely,

A handwritten signature in cursive script that reads "Connie Day".

Connie Day
Program Supervisor
Local Government - CEQA

Attachment
(genplnop)

ATTACHMENT

POTENTIAL POLICIES AND IMPLEMENTATION STRATEGIES

POLICY 1

To reduce particulate emissions from paved and unpaved roads, construction activities, and agriculture operations.

STRATEGIES:

- o Use low emission mobile construction equipment (e.g., tractor, scraper, dozer etc.).
- o Develop trip reduction plan to achieve 1.5 AVR for construction employees.
- o Water site and clean equipment morning and evening.
- o Spread soil binders on site, unpaved roads and parking areas.
- o Apply District approved chemical soil stabilizers according to manufacturers specifications, to all inactive construction areas (previously graded areas which remain inactive for 96 hours).
- o Reestablish ground cover on construction site through seeding and watering.
- o Implement or contribute to an urban tree planting program to off-set the loss of existing trees at the construction site.
- o Employ construction activity management techniques, such as: extending the construction period; reducing the number of pieces of equipment used simultaneously; increasing the distance between the emission sources; reducing or changing the hours of construction; and scheduling activity during off-peak-hours.
- o Pave construction roads, and sweep streets if silt is carried over to adjacent public thoroughfares.
- o Reduce traffic speeds on all unpaved road surfaces to 15 miles per hour or less.
- o Require a phased-schedule for construction activities to minimize emissions.
- o Suspend grading operations during first and second stage smog alerts.
- o Suspend all grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour.
- o Wash off trucks leaving the site.
- o Maintain construction equipment engines by keeping them tuned.
- o Use low sulfur fuel for stationary construction equipment.
- o Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.
- o Use low emission on-site stationary equipment.

POLICY 2

To reduce automobile emissions by reducing the number of vehicles driven to a work site on a daily basis:

STRATEGIES

- o Provide local shuttle and regional transit systems and transit shelters.
- o Provide bicycle lanes, storage areas, and amenities.
- o Ensure efficient parking management.
- o Provide dedicated parking spaces with electrical outlets for electric vehicles.
- o Provide peripheral park-n-ride lots.
- o Provide preferential parking to high occupancy vehicles and shuttle services.
- o Charge parking lot fees to low occupancy vehicles.

POLICY 3

To reduce automobile emissions by reducing the number of persons who must drive to a work site on a daily basis:

STRATEGIES

- o Promote Transportation Management Associations (TMAs).
- o Establish telecommuting programs, alternative work schedules, and satellite work centers.
- o Work with cities/developers/citizens in the region to implement TDM goals.

POLICY 4

To reduce vehicular emissions through traffic flow improvements:

STRATEGIES

- o Configure parking to minimize traffic interference.
- o Minimize obstruction of through-traffic lanes.
- o Provide a flagperson to guide traffic properly and ensure safety at construction sites.
- o Schedule operations affecting traffic for off-peak hours.
- o Develop a traffic plan to minimize traffic flow interference from construction activities. Plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service.
- o Schedule goods movements for off-peak traffic hours.
- o Synchronize traffic signals.
- o Provide adequate ingress and egress at all entrances to public facilities to minimize vehicle idling at curbsides.
- o Provide dedicated turn lanes as appropriate.

POLICY 5

To reduce the length of work trips while expanding the supply of affordable housing and creating an urban form that efficiently utilizes urban infrastructure and services.

STRATEGIES

- o Achieve a job/housing balance compatible with the Regional Growth Management Plan.
- o Encourage growth in and around activity centers, transportation nodes and corridors.
- o Promote future patterns of urban development and land use , making better use of existing facilities, and promoting mixed use development involving commercial and residential uses.

POLICY 6

To reduce stationary emissions of operation related activities.

STRATEGIES:

- o Require development practices which maximize energy conservation as a prerequisite to permit approval.
- o Improve the thermal integrity of buildings, and reduce the thermal load with automated time clocks or occupant sensors.
- o Introduce window glazing, wall insulation, and efficient ventilation methods.
- o Introduce efficient heating and other appliances, such as water heaters, cooking equipment, refrigerators, furnaces and boiler units.
- o Incorporate appropriate passive solar design, and solar heaters.
- o Use devices that minimize the combustion of fossil fuels.
- o Capture waste heat and reemploy it in nonresidential buildings.
- o Landscape with native drought-resistant species to reduce water consumption and to provide passive solar benefits.

POLICY 7

To protect sensitive land uses from major sources of air pollution.

STRATEGIES:

- o Integrate additional mitigation measures into site design such as the creation of buffer zones between a potential sensitive receptor's boundary and potential pollution source.
- o Require design features, operating procedures, preventive maintenance, operator training, and emergency response planning to prevent the release of toxic pollutants.

DEPARTMENT OF FOOD AND AGRICULTURE

1220 N Street
Sacramento, California 95814

August 7, 1992

Mr. Steve Harding
Planning Director
City of Murrieta
26442 Beckman Court
Murrieta, California 92562

Dear Mr. Harding,

Thank you for the opportunity to provide comments for the forthcoming Draft Environmental Impact Report (DEIR) for City of Murrieta General Plan, SCH# 92072047. The California Department of Food and Agriculture (CDFA) would appreciate a discussion of the following issues in the General Plan.

1. A complete description and map of the planning area. This should include the role of agriculture in the local economy, the number of acres in agricultural production, and the current land use designations (including identification of prime agricultural lands).
2. The method by which the city will encourage the conservation of agricultural lands. Please include the number of acres currently under Williamson Act contracts or Agricultural Preserves, and how the Plan will affect such designations.
3. The possible mitigation measures to ensure that agricultural land is not prematurely or unnecessarily converted to non-agricultural uses. These measures could include use of a Right-to-Farm Ordinance, the Williamson Act, deed disclosures, transfer or purchase of development rights programs, a minimum parcel size for assurance of continued commercial farming feasibility and requiring infill development of vacant land prior to urban expansion.
4. The buffering measures to mitigate conflicts which can arise from the close proximity of agricultural and urban areas due to noise, dust, chemical usage, trespassing, and traffic. These measures can include, but are not limited to, setbacks, clustered development, berms, and greenbelts.
5. An extensive cross referencing of the policies related to agriculture included in other elements of the General Plan, (ie. land use, traffic and circulation, conservation, etc), to the proposed agricultural policies in the General Plan.
6. Please discuss the restriction of urban sprawl and any other proposed methods that limit premature conversion of farmland.

CITY OF MURRIETA

AUG 10 1992

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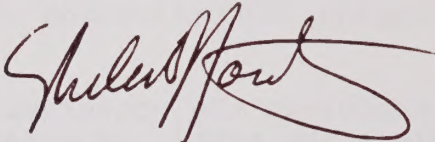
Mr. Harding
August 7, 1992
Page 2

7. Given the projected need for residential and urban development, what is the cumulative impact to agriculture upon implementation of the General Plan?

The lead agency should also solicit comments from concerned local agencies such as the agricultural commissioner's office, the USDA Soil Conservation Service office, and the county Farm Bureau Federation office, since the above issues are not necessarily comprehensive.

The CDFA supports the right of local agencies to develop and implement land-use policy in its area of influence, but also wants to assure that agricultural land is not prematurely and irreversibly lost due to development that is not accurately assessed for environmental impact.

Sincerely,

A handwritten signature in dark ink, appearing to read "Shelley Mountjoy", with a large, sweeping flourish at the end.

Shelley Mountjoy
Environmental Reviewer
Agricultural Resources Branch
(916) 322-5227

cc: Russ Colliau, Office of Planning and Research
Riverside County Agricultural Commissioner
California Association of Resource Conservation Districts

DEPARTMENT OF TRANSPORTATION

District 8, P.O. Box 231
San Bernardino, CA 92402
TDD (714) 383-4609

CITY OF MURRIETA

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August 7, 1992

08-Riv-15-6.6/13.6
08-Riv-215-8.9/12.5
SCH# 92072047

Mr. Stephen Harding
Planning Director
City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

Dear Mr. Harding:

Notice of Preparation of a
Draft Environmental Impact Report of
the Murrieta General Plan

We have reviewed the above-referenced document and request consideration of the following comments:

- A traffic study is needed for the Draft Environmental Impact Report and should include the following from a worst case scenario viewpoint: existing and future average daily traffic (ADT) volumes, traffic generation (including peak hour), traffic distribution, analysis of peak hour demand and capacity using delay methodology for intersections along with current and projected capacities of local roads, state highways and freeways that might be impacted. Special attention should be given to freeway 15, freeway 215 and highway 79.

Different land use scenarios based on density of build-out should be used to determine impact on both the local roads and State circulation system.

- Regarding the General Plan circulation element:

A facility plan is needed for all major roads and intersections to serve future demand. It should use future traffic volumes and Level of Service (LOS) based on the build-out of the preferred land use alternative. The Plan should include needed improvements to freeway 15, freeway 215 and all the interchanges within the city of Murrieta.

A financing plan with mechanisms, policies and procedures for funding of improvements to the circulation system, including State facilities should also be provided.

The I-15 and I-215 freeway plans are for 10-lane ultimate facilities with a minimum right of way width of 250 feet, the General Plan circulation element should include policies and procedures to preserve the needed right of way for the future expansion of the freeways and interchanges.

Given the intense population growth coupled with increasing traffic congestion, traffic demand mitigation programs are a necessary part of the solution to traffic congestion. The City should include a plan that facilitates and encourages the use of carpooling, vanpooling, public transit, and accommodations for both pedestrians and bicycles as mitigations for the effect of cumulative traffic.

- In the General Plan land use element, the City should consider the following:

It is recognized that there is considerable public concern about noise levels adjacent to heavily traveled highways. Certain types of land use may not be appropriate near a major highway and/or may require special noise attenuation measures. Development of this property should include any necessary attenuation measures as mitigation for noise impacts.

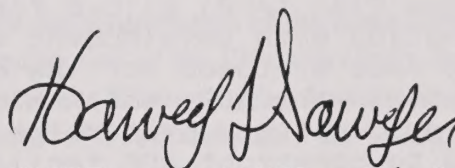
Mr. Stephen Harding
August 7, 1992
Page Three

When available, please send the Draft Environmental Impact Report and General Plan to:

Maisoon Afaneh
Transportation Planning, CEQA/IGR
California Department of Transportation
P.O. Box 231
San Bernardino, CA 92402

If you have any questions, please contact Maisoon Afaneh at (714) 383-5928 or FAX (714) 383-5936.

Sincerely,

A handwritten signature in cursive script, reading "Harvey J. Sawyer".

HARVEY J. SAWYER, Chief
Transportation Planning
CEQA/IGR

RIVERSIDE COUNTY FLOOD CONTROL AND
WATER CONSERVATION DISTRICT

August 12, 1992

CITY OF MURRIETA

AUG 13 1992

RECEIVED
PLANNING DEPT.

Mr. Stephen Harding
Planning Director
City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

Dear Mr. Harding:

Re: Murrieta General Plan & EIR

This letter is written in response to the Notice of Preparation of a General Plan and the corresponding Environmental Impact Report (EIR) for the City of Murrieta, which was received by the District July 15, 1992.

The City of Murrieta is within the boundary of the District's Area Drainage Plan for the Murrieta Creek area. The Murrieta Creek Area Drainage Plan (ADP) allows for the collection of development fees in conjunction with development within the ADP boundaries. The collected fees are used for the construction of flood control facilities within the ADP, which mitigate the adverse effects of development on downstream properties. Occasionally, developers are required to construct ADP facilities as a condition of approval for a project. When fully implemented, the Murrieta Creek ADP will provide the major flood control facilities required to relieve the area of its most serious flooding problems. The General Plan and the EIR should address how the ADP will be incorporated into the General Plan. Contact Mr. Clyde Johnson of the District's Planning section at 714/275-1205 for further information regarding the Murrieta Creek ADP.

The District would also like to point out that the City of Murrieta is a co-permittee on the District's National Pollutant Discharge Elimination System (NPDES) Permit which is administered by the California Regional Water Quality Control Board. The General Plan and the EIR should address how the NPDES Permit requirements will be incorporated into the General Plan. Contact Mr. Jason Christie of the District's NPDES section at 714/275-1273 for further information regarding the NPDES Program.

Thank you for the opportunity to review the initial study. Please forward a copy of the Draft General Plan and Draft EIR to the District for our review and comment and/or files. If you have any questions regarding this matter, feel free to call Randy Sheppard of the Flood Plain Management section at 714/275-1306.

Very truly yours,

Arthur G. Krueger

ARTHUR G. KRUEGER
Senior Civil Engineer

RS:bjp
rs10805a

FRIENDS OF THE ALAMOS DISTRICT
37100 Los Alamos Road
Murrieta CA 92563
August 12, 1992

Mr. Stephen Harding, Planning Director
City of Murrieta
Murrieta City Hall
26442 Beckman Place
Murrieta CA 92562

Regarding: EIR for City of Murrieta
General Plan

Dear Mr. Harding,

The Friends of the Alamos District seeks the conservation of the historic rural Alamos District that takes in part of the northern section of the City, the City's Sphere of Influence, and the area east of Highway 79 to Lake Skinner. (See Attachment.) The area has been a distinct community associated with Murrieta since the 1880s. The community wishes to retain its rural way of life.

Our review of the initial study indicates some deficiencies. The initial study does not refer to existing agricultural and rural residential land uses within the City or the Sphere of Influence. The circulation section of the study also does not comment on the impacts of traffic on rural areas including impacts of traffic on those driving machinery and on those using private lanes to enter and exit local roads. The study does not mention the existing light and glare from urban sections of the City that impact rural areas. It also does not take into account the impacts of urban development on scenic features in rural areas. It does not mention the need to preserve existing wetlands, seasonal pools, and groundwater recharge areas for existing private wells in rural areas such as ours. Finally, the study remarks that the City may have historic sites. A survey of the material available through libraries, newspapers, the California State Historic Resources Inventory, and the Citizens for Historic Murrieta will indicate the many historic structures, roads, trails, and landscape features that lie within the City and the Sphere.

The Friends of the Alamos District would like to see the environmental impact report for the City of Murrieta General Plan include as an alternative a conservation district plan for the part of the District that falls within the boundaries of the City and Sphere of Influence that would (1) recognize and designate the area as an open space conservation district, (2) protect and enhance the existing agricultural and rural residential land use and open space, (3) secure the district's water resources, cultural

and historic sites, wildlife and plant populations, recreational uses, air quality, and scenic values, and (4) reduce the growth-inducing impacts of surrounding urbanization particularly impacts from motor vehicle and air traffic.

The alternative would best include the following:

AGRICULTURAL LAND USE.

(1) A focussed survey of existing agricultural land use within the City and the Sphere including traditional and innovative operations.

(2) A survey of agricultural preserves within the City and the Sphere.

(3) A survey of development entitlements on existing agricultural land within the City and the Sphere.

(4) The examination of innovative agricultural land use, products, marketing, and operations, the use of water harvesting practices, the economic benefits of such land use to the City, and the conservation of historic farmsteads and ranches and lands held as agricultural preserves under the Williamson Act for the district.

(5) An examination of establishing open-space zoning for specific plan and subdivision projects within the District to conserve agricultural land use areas. See Attachment.

(6) An examination of providing for density transfers of existing urban development entitlements on agricultural land within the Alamos District.

(7) The identification of such potential density transfer areas.

(8) The identification of potential areas within urbanized areas of the City to receive density transfers from agricultural areas.

(9) An examination of providing for mitigation banking for the loss of agricultural areas within the City and the Sphere.

(10) The identification of areas within the Alamos District for such mitigation banking including agricultural preserves and historic farmsteads.

(11) An examination of the establishment of buffers of a minimum of 300 feet between agricultural land uses and urban areas.

(12) The identification of such buffer areas.

RURAL RESIDENTIAL LAND USE.

(1) A survey of existing rural residential land uses and their impacts within the District.

(2) A survey of rural neighborhoods within the District.

(3) A survey of urban residential development entitlements within the District.

(4) The examination of rural residential densities and land use of a maximum of one dwelling unit per 2 1/2 acres on a minimum of one-acre lots with open-space zoning (see Attachment).

(5) The examination of the value of securing rural land use and neighborhoods.

(6) The examination of providing for density transfers of existing urban development entitlements in rural residential areas within the District.

(7) The identification of such potential density transfer areas within the District.

(8) The identification of potential urbanized areas within the City to receive such density transfers.

(9) The examination of establishing buffers of a minimum of 300 feet between urban areas and rural residential land use.

OPEN SPACE

(1) A survey of open space areas and their impacts within the District.

(2) The examination of the value of establishing open spaces in the Alamos District.

(3) The identification of significant open space areas within the Alamos District including agricultural areas, historic trail, road, settlement, ceremonial, farming and ranching areas, areas of seasonal streams, pools, and wetlands, and habitat areas of threatened and endangered species and species of special concern particularly

(a) The Warm Springs Open Space Preserve including the area from the Murrieta Hogbacks to Highway 79,

(b) The Warm Springs Corridor from Murrieta Creek to Lake Skinner and from Murrieta Creek to Scott Road and the historic Shoshonee ceremonial site of Ringing Rock,

(c) The Alamos Corridor along Yoder Creek and its tributaries from Murrieta Creek to the Menifee Hills and to the hills between Los Alamos Road and I-215, and from Murrieta Creek to the Murrieta Hogbacks,

(d) The historic Garringer Place at 36131 Briggs Road,

(e) The site of the historic Shoshonee settlement of Toatwi near the tributary of Warm Springs Creek and the intersection of Briggs and Benton Road

(f) The site of historic Adobe Springs and its associated rest stop.

(g) The historic James Place at 37201 Los Alamos.

(5) The examination of providing for density transfer of existing urban development entitlements in significant open space areas including historic open space areas, agricultural areas, riparian areas, and habitat areas of threatened and endangered wildlife and plant species and species of special concern within the Alamos District.

(6) The identification of such potential density transfer areas within the District.

(7) The identification of potential areas within urbanized Murrieta to receive density transfers from such areas.

(8) The identification of open space areas in the Alamos District that will establish a buffer between Temecula and Murrieta including a Warm Springs Open Space Preserve in the area from the Murrieta Hogbacks to Highway 79.

(9) The examination of establishing open-space buffers of a minimum of 300 feet between urban and rural land uses in the Alamos District.

(10) An identification of areas for such buffers in the District.

WILDLIFE AND VEGETATION

(1) A focussed survey of rare and endangered species and species of special concern within the District for example, but not to be limited to, the Stephens kangaroo rat, the California gnatcatcher, coastal sage brush, the orange-throated whiptail lizard, the San Diego horned lizard, the nighthawk, the burrowing owl, the red-shouldered hawk, the black-tailed kite, the golden eagle, Swainson's hawk, and Cooper's hawk.

(2) A focussed survey of riparian areas, seasonal pools, and wetland areas within the Alamos District.

(3) The discussion of the value of establishing wildlife linkages and preserves.

(4) The identification of existing and potential wildlife linkages along seasonal streambeds, particularly

(a) along Warm Springs Creek and its tributaries from Murrieta Creek to Scott Road and from Murrieta Creek to Lake Skinner and

(b) along Yoder Creek and its tributaries from Murrieta Creek to the Menifee Hills and the hills between Los Alamos Road and I-215 and from Murrieta Creek to the Murrieta Hogbacks.

(5) The examination of restoring Warm Springs Creek from I-15 to Murrieta Creek and Yoder Wash and its tributaries.

(6) The examination of providing for raptor foraging areas in the District particularly on agricultural lands and in open space preserve areas, particularly the proposed Warm Springs Park Preserve and historic farmsteads and ranches.

(7) The examination of providing for density transfer of urban development entitlements in habitat areas of threatened and endangered species and species of special concern within the Alamos District.

(8) The identification of such density transfer areas.

(9) The identification of potential areas within the urbanized areas of the City to receive such density transfers.

(10) The identification of mitigation banking areas for impacts on habitats of threatened and endangered wildlife species and species of special concern within the Alamos District for city-wide development projects including

(a) Warm Springs Creek and its tributaries from Murrieta Creek to Lake Skinner and Warm Springs Creek and its tributaries from Murrieta Creek to Scott Road,

(b) Yoder Creek and its tributaries from Murrieta Creek to the Menifee Hills, to the hills between Los Alamos Road and I-215, and to the Murrieta Hogbacks,

(c) A potential Warm Springs Open Space Preserve including the area from the Hogbacks to Highway 79.

RECREATIONAL RESOURCES

(1) A survey of existing paths used by pedestrians, school children, equestrians, and bicyclists

(2) The examination of establishing off-road bicycle paths (Class 1) within the road rights-of-way

- (a) along Ivy/Los Alamos Road/Thompson Road/Washington (intersecting Thompson) from Murrieta Creek to Lake Skinner Regional Park,
 - (b) along Briggs Road from Benton Road to Scott Road,
 - (c) along Whitewood Road/Antelope Road from Los Alamos Road to San Jacinto Community College,
 - (d) along Meadowlark from Clinton Keith to Scott Road.
- (3) The examination of establishing multi-purpose off-road equestrian and hiking paths within the road rights-of-way
- (a) along Los Alamos Road/Thompson Road/Washington (intersecting Thompson Road) from Murrieta Creek to Lake Skinner Regional Park,
 - (b) along Warm Springs Creek and its tributaries from Murrieta Creek to Lake Skinner Regional Park,
 - (c) along Briggs Road from Benton Road to Scott Road,
 - (d) along Meadowlark from Clinton Keith to Scott Road, and
- (4) The examination of establishing multi-purpose equestrian and hiking paths
- (a) around the Hogbacks through the proposed Warm Springs Park Preserve,
 - (b) along Warm Springs Creek and its tributaries,
 - (c) along and around the Meniffee hills
 - (d) along and around the hills between I-215 and Los Alamos Road
- (5) The examination of establishing a Warm Springs Park Preserve between Murrieta Hogbacks and Highway 79 with active recreational uses near Highway 79, passive recreational uses with provisions for some wildlife use in the central area, and a preserve for threatened and endangered wildlife and vegetation and species and populations of special concern near Warm Springs Creek, its tributaries, and the Murrieta Hogbacks.

HISTORIC RESOURCES

- (1) A focussed and updated survey of historic sites including structures, roads, trails, ceremonial sites, settlement sites, campsites, and landscape features within the Alamos District.
- (2) An establishment of an integrated historic preservation approach for the District that
- (a) recognizes the significance of historic structures and historic landscape elements including roads, trails, ceremonial sites, settlement sites, campsites, water features, trees, groves, and topographic features and their settings and provides for their protection and
 - (b) seeks to establish linkages between historic features within the District including the historic and rural section of Los Alamos Road between Via Santee and Highway 79 and the preservation of the Murrieta Hogbacks and Warm Springs Creek and its tributaries (See National Park Service, National Register Bulletin Number 30, "How to Identify, Evaluate, and Register Rural Historic Landscapes") rather than a conventional piecemeal historic preservation approach.

(3) An examination of means to protect the historic route and features of the rural section of Los Alamos Road from Via Santee to Highway 79 including

- (a) the creation of a citizen advisory committee,
- (b) alternate routes for commuter and commercial traffic,
- (c) disconnection with potentially improved Clinton Keith Road and Highway 79,
- (d) reviving and replanting of historic trees, and
- (e) preservation of the relationships between the road and structures, water features (streams, vernal pools, and wetlands), topography, viewsheds, and areas of native vegetation. See Attachments.

(4) An identification of the historic features that characterize the Alamos District itself including the relationships of structures, ceremonial grounds, settlement sites, campsites, fields, roads, trails, lanes, trees, native vegetation populations, groves, boulders, water features, and hills to each other, viewsheds, and architectural styles.

(5) An examination of the development of guidelines for future building that incorporate the historic relationships between structures, roads, and the landscape features listed above.

(6) The identification of potential historic sites for public acquisition in the District including the Garringer Place at 36131 Briggs Road, the Adobe Springs site and its associated rest stop, the site of Toatwi along the tributary of Warm Springs Creek, and the James Place at 37201 Los Alamos Road.

(7) The examination of the means for the public acquisition for key historic sites within the District.

SCENIC RESOURCES.

(1) An examination of prohibiting urban outside lighting in the District.

(2) An examination of the means of preserving existing slopes, hills, and ridgelines within the District including contour grading, the establishment of slope and ridgeline preserve areas, particularly the Murrieta Hogbacks, and the establishment of guidelines prohibiting building a minimum of 300 feet of ridgelines.

(3) An identification of slopes, hills, and ridgelines within the District to be preserved including the Murrieta Hogbacks.

NOISE AND AIR POLLUTION

(1) An examination of means of reducing noise impacts in the District including the reduction of motor vehicle transport and air transport through emphasis on bicycle travel, pedestrian access, telecommuting facilities, mixed-use commercial and residential centers including historic downtown Murrieta and the Murrieta Hot Springs area.

(2) An examination of means of reducing air pollution in the District including the development of a focus on multi-modal transportation systems throughout the City, on bicycle travel, on pedestrian access, on the development of telecommuting facilities, and mixed-use commercial and residential centers including historic downtown Murrieta and the Murrieta Hot Springs area.

WATER RESOURCES

- (1) Survey the households that are dependent on private wells.
- (2) Identify groundwater recharge areas in the District.
- (3) Examine means of providing for continuing and additional recharge of private wells including retention and detention basins, management of ground water recharge areas, seasonal streambeds, pools, and wetlands, use of recycled water, biologic methods of water purification, and other integrated water management approaches.

CIRCULATION.

- (1) A survey of existing rural road use in the District, including pedestrians, bicyclists, and equestrians.
- (3) An examination of the value of maintaining and enhancing two-lane rural roads and establishing off-road pedestrian, bicycle, and equestrian paths within the District.
- (4) An examination of reducing growth-inducing impacts and enhancing the roads of the district
 - (a) by diverting commuter and commercial traffic,
 - (b) by eliminating proposed connections to proposed Clinton Keith Road, Highway 79, and other urban streets,
 - (c) by using innovative shoulder and trail materials and porous pavements,
 - (d) by prohibiting urban curbs and urban straight or meandering sidewalks,
 - (e) by eliminating the parking lane required by conventional road standards,
 - (f) by allowing each road to become its own standard,
 - (g) by providing educational signage and pull-out areas, and
 - (h) by securing off-road commuter and recreational pedestrian, equestrian, and bicycle trails.
- (5) An examination of establishing an off-road recreational and commuting bicycle and pedestrian path (Class 1) within the road rights-of-way
 - (a) along Ivy/Los Alamos/Thompson Road from Murrieta Creek to Washington (intersecting Thompson Road)
 - (b) along Whitewood/Antelope Road from Los Alamos to San Jacinto Community College,
 - (c) along Briggs Road from Benton Road to Scott Road.
 - (d) along Meadowlark from Clinton Keith Road to Scott Road.
- (6) An examination of establishing an off-road equestrian trail within the road rights-of-way
 - (a) along Los Alamos/Thompson Road from Celia to Washington (intersecting Thompson),
 - (b) along Briggs Road from Benton to Scott Road, and
 - (c) along Meadowlark from Clinton Keith to Scott Road.

(7) An examination of designating Highway 79 and I-215 as scenic highways with the adoption of scenic corridor protection guidelines.

district conservation plan

The ~~alternative~~ would best also examine limiting commercial uses to enterprises related to recreational, agricultural, or educational uses.

Thank you very much for the opportunity to comment.

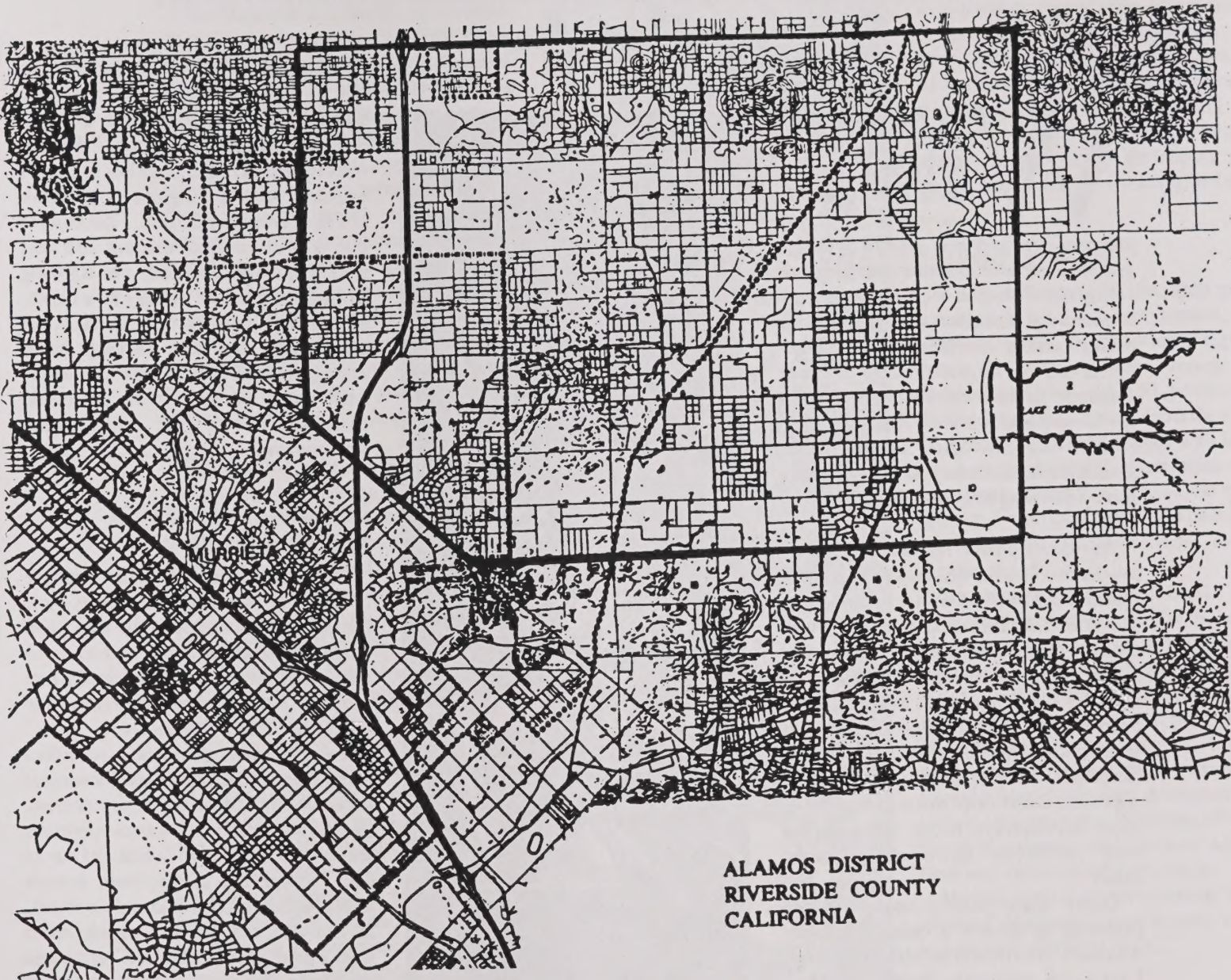
Sincerely,

Rita Gentry

Rita Gentry
37100 Los Alamos Road
Murrieta CA 92563

Cecelia Webster

Cecelia Webster
30255 Los Alamos Road
Murrieta CA 92563



ALAMOS DISTRICT
RIVERSIDE COUNTY
CALIFORNIA

PROTECTING FARMLAND THROUGH OPEN-SPACE ZONING

An innovative technique offers an alternative to suburban sprawl

by Randall Arendt, MRTPI

While it may be desirable to protect all our best agricultural land, in areas where growth is imminent the most practical approach may involve striking a balance between development and open space. One group looking at ways to do this is the University of Massachusetts's Center for Rural Massachusetts, a research center which investigates how best to preserve the state's rural landscape. In this article, the Center's Director of Planning and Research, Randall Arendt, explains how open space zoning offers an innovative method to keep farmland and open space from being consumed by development.

As development pressure threatens productive and picturesque fields and pastures across the country, local and state governments continue to experiment with a variety of tools to help farmers protect their land. One technique attracting a considerable amount of interest in the Northeast is "open space zoning". With its relative simplicity, low cost, and fairness to developers and rural landowners, this new approach could help many communities meet development needs while keeping their productive agricultural landscape intact.

Open space zoning uses land use planning to achieve a balance between necessary growth and farmland protection. Under this technique, houses and commercial buildings are grouped closer together to preserve nearby farmland and other open space. While in this aspect it is similar to cluster development, open space zoning offers a significant improvement by establishing greater requirements on the size and quality of the open space protected.

Limiting the amount of agricultural land that can be built upon, open space zoning requires that new developments be laid out



A rural area before development

so that no more than half of the farmland is lost to housing lots and streets. Designers work with farmers to arrange lots in a farm's woodland areas or along one or two sides of a farm on less fertile soil. This ensures that only the smallest amount and least productive land is developed. The adjoining farmland remains in the farmer's hands, permanently protected through the use of conservation easements. Although house lots are reduced in size, views of nearby open space are guaranteed to remain attractive, forever free from future development.

Benefits for Farmers and Farmland

Open space zoning offers multiple benefits to farmers, developers and homeowners, as well as to the land itself. Instead of losing their entire farm to development, farmers retain ownership of at least one half of the farm yet still receive full value for their "development rights." Farmers — knowing the land's capabilities better than anyone else — are encouraged to become involved in the design process, thus having a voice in the way development affects their own communities and way of life. Through this participation, farmers with a mixture of open land and woodland, for example, can "transfer" development from a productive "south field" to the less productive (but suitable for construction) "north woods" at the other end of the tract.

If a farmer wishes to retire and has no family members interested in carrying on, open space zoning can enable the farm to be sold to a developer without it being taken entirely out of agricultural use. Under this zoning, the half of the farm protected from construction can be purchased at *agricultural* value (much less than the development value) by another farmer, perhaps one with neighboring fields or a young farmer

with considerable attention to this and other factors at full development value. Thus, the loss of an entire farm can be avoided while the opportunities for established or novice farmers can be increased.

To minimize any conflicts which might arise between normal farming operations and homeowners unfamiliar with farming, open space zoning typically contains design standards to minimize the length of the border between a house lot and farmland. These standards also require the developer to plant a buffer strip at least 75 feet wide with fast-growing native trees and grasses.

Homeowners are also served by having the scenic and productive farmland around them protected through conservation easements. Often co-signed by several local or statewide conservation groups, these easements are permanently attached to the deed and typically permit only farming and forestry uses (and occasionally certain types of informal outdoor recreation). Open space zoning also assures that developers cannot include land unsuitable for building, such as wetlands and floodplains, from their density calculations. This represents another improvement over standard cluster regulations.

By planning subdivision development under open space zoning, towns can continue to maintain the character of single-family detached dwellings in those districts where a departure would be inappropriate. In fact, homes on compact "village-scale" lots could also help reinforce the character of many rural settlements, where houses were traditionally located close together before modern zoning began to impose large-lot suburban sprawl.

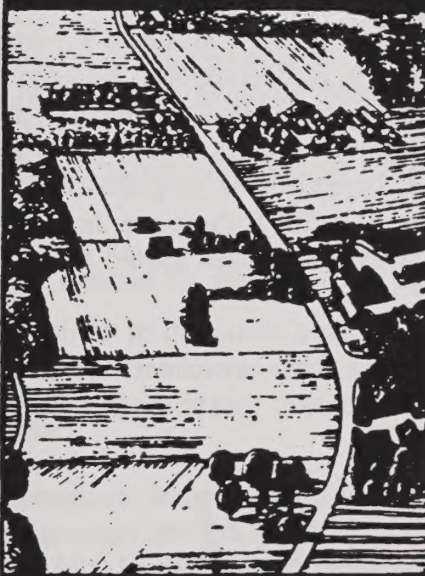
Developers too can benefit from open space zoning. Allowed to construct buildings closer together, they can reduce their construction costs for roads and for water and sewer systems. Permanently protected views and nearby open space make attractive selling points to potential home buyers, many of whom are willing to pay a premium for an alternative to living in a conventional and unimaginative subdivision. Historically, housing close to conservation areas has shown to appreciate faster as well.

One of Many Useful Tools

Open space zoning is an important addition to the many tools available to help protect farmland. Clearly, with situations differing in regions and communities across



Through open space zoning, the sprawl of conventional development upon a rural area (above) can be controlled by creative planning (below).



*Illustrations:
c. Center for Rural Massachusetts;
Designer: Dudson Associates;
Illustrator: Kevin Wilson*

the country, no one protection strategy can be the absolute answer. While protecting entire farms through programs such as Purchase of Development Rights is preferable, this method is not always viable. PI programs do not exist in many areas, while in the areas where they do exist, there is often insufficient money in the state government or among private land trusts to fund them. In this case, open space zoning offers the best hope for farmers who need funds to improve or expand their operations.

Open space zoning can increase the amount of farmland permanently protected at no cost to public programs. Essentially, it amounts to "privatizing" some of the development-rights purchases without adding extra costs to developers or a government or inconveniencing farmers.

Making it Work

In order to be truly effective, open space zoning must become a requirement, not simply an option. Twenty years of experience with "optional cluster" zoning has demonstrated that only 10 percent of developers voluntarily stray from the typical suburban pattern of houses with large lots. It seems that many do not realize that open space zoning can increase the profitability — and profitability — of their subdivisions, while creating many public benefits as well.

It is encouraging to note, however, that an increasing number of Northeast towns are requiring "open space subdivision design" for all new developments proposed in certain natural resource areas, areas which include farmland, riverbank lakefronts, ridgelines and summits. As they implement this method, these communities will help teach planners, developers and farmers that innovative planning offers a wealth of economic and aesthetic advantages over conventional conversion.

After all, there is no constitutional "right to sprawl". With open space zoning, there is a practical alternative to it.

Further information on open space zoning can be obtained from the Center for Rural Massachusetts, Hills North, University of Massachusetts, Amherst, MA 01003. Information packets are \$5 each (for Massachusetts residents) to cover material postage and handling. Make checks payable to UMass-CRM.

Copies of the 184-page "Design Manual for Recreation and Development," containing 4 pages color plates and modern zoning regulations, are \$28 each and can be ordered from the Land Institute of Land Policy, 26 Trumbull Street, Cambridge, MA 02138.



818 West Seventh Street, 12th Floor • Los Angeles, California 90017-3435 ☐ (213) 236-1800 • FAX (213) 236-1825

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August 13, 1992

Mr. Stephen Harding
Planning Director
City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

CITY OF MURRIETA

AUG 17 1992

RECEIVED
PLANNING DEPT.

RE: Notice of Preparation of City of Murrieta General Plan
SCAG Clearinghouse #: RI-55891-NPR

Dear Mr. Harding:

Thank you for the opportunity to review and comment on the Notice of Preparation of the City of Murrieta General Plan. As areawide clearinghouse for regionally significant projects, SCAG assists cities, counties and other agencies to review projects and plans for consistency with the Regional Housing Needs Assessment (RHNA), the Regional Mobility Plan (RMP), the Growth Management Plan (GMP), and Air Quality Management (AQMP) Plan, all of which are included in the State Implementation Plan (SIP).

As you know, the California Environmental Quality Act requires that EIRs discuss any inconsistencies between the proposed project or plan with the applicable general plans and regional plans (Section 15125 [b]). Accordingly, one of our major interests would be to ensure that the EIR clearly identifies any policies, objectives or programs which are inconsistent with the RHNA, RMP, GMP or AQMP. If there are inconsistencies, an explanation and rationalization for such inconsistencies should be provided.

Please provide a minimum of 45 days for SCAG to review the General Plan and DEIR when these documents are available. Meanwhile, if we can be of any further assistance, please contact Barbara Dove at (213) 236-1861.

Sincerely,

ERIC H. ROTH
Manager, Intergovernmental Review

Post-It™ brand fax transmittal memo 7671		# of pages > 4
To <i>Karen Adams</i>	From <i>Jud Dun</i>	
Co. <i>Lightfoot Group</i>	Co. <i>City of Murrieta</i>	
Dept.	Phone #	
Fax #	Fax #	

MS P Response

SCAG COMMENTS ON THE NOTICE OF PREPARATION OF THE MURRIETA GENERAL PLAN

REGIONAL PLAN POLICIES

There are a number of policies expressed in the Growth Management Plan (GMP) which are particularly relevant to this project. Among them are policies which would:

- o Promote future patterns of urban development and land use which reduce costs of infrastructure construction and make better use of existing facilities, and to achieve a good match between future growth and the phasing of new facilities or expansion of existing ones.
- o Encourage growth to occur in and around:
 - activity centers
 - transportation node corridors
 - under-utilized infrastructure systems
 - areas needing recycling and redevelopment
- o Encourage mixed-use developments and other planning techniques to make employment centers easy to walk to or reach by transit.
- o Achieve better jobs/housing balance at the subregional level through:
 - encouragement and provision of incentives to attract housing growth in job-rich subregions
 - encouragement and provision of incentives to attract job growth in housing-rich subregions
- o To the degree possible, achieve a balance by subregion of the type of jobs with the price of housing.

GROWTH MANAGEMENT PLAN (GMP)

According to SCAG's designation of subregions, Murrieta is located in the urbanizing Central Riverside Subregion. The 2010 housing forecast for this subregion is 258,800 units, which is an addition of 168,800 units over the 1984 level. The employment forecast of 179,500 represents 139,700 added jobs between 1984 and 2010. The jobs/housing balance ratio of .45 in 1984 improves to .70 in the year 2010. The jobs/housing balance performance ratio computed by dividing added jobs by added dwelling units from 1984 to 2010 is .83.

For the purpose of coordinating regional planning with local planning efforts, it is of vital importance to address jobs/housing relationships in the EIR. The Draft EIR should provide calculations for the amount of employment within the city that could be generated by the proposed commercial and industrial land uses depicted in the Land Use Chapter or Element.

This should be followed by calculations of jobs/housing relationships of the General Plan. Subjects which require discussion include:

1. An estimate of the number of workers that would be generated by buildout of the commercial and industrial land uses proposed by the plan by the year 2010.
2. A target or goal for the number of housing units that should be developed within any mixed-use areas by the year 2010.
3. Where the future work force would live.
4. The affordability of housing for workers in the city.
5. Subregional jobs/housing relationships - existing and future - and vehicle miles traveled (VMT) reduction alternatives.
6. The feasibility of a plan alternative that places major emphasis on mixed-use development and transportation demand management measures as a means to minimize VMT consistent with GMP and AQMP/SIP.

The General Plan should provide that when individual projects are reviewed by the city, a jobs/housing analysis is undertaken to determine the appropriate number of housing units or jobs which should be associated with that particular project. An example of this type of analysis is provided in Appendix E of the General Development Chapter of SCAG's Conformity Review Handbook.

Also, mention should be made in the Draft EIR of any initiative by the City of Murrieta to enter into arrangements with other cities in the Central Riverside Subregion to address growth management planning. This is one of the key programs of the GMP and should be considered as an effective way of mitigating adverse subregional traffic and circulation impacts on the General Plan.

TRANSPORTATION DEMAND MANAGEMENT (TDM)

The General Plan should include policies and programs related to TDM including compliance with the AQMP, Congestion Management Plans, encouragement of telecommuting, parking management, non-motorized transportation, and adoption of a TDM ordinance or trip reduction ordinance.

To be adequate for the purposes intended by the SIP, the TDM program should include the following elements:

1. A detailed description of individual TDM mitigation measures.
2. Expected Vehicle Miles Traveled (VMT) and Vehicle Trip (VT) reduction targets and other expected results from each component of the TDM program.
3. Funding sources for each program component.
4. Identification of the agencies or persons responsible for monitoring and administering the TDM program.
5. An implementation schedule for each TDM program component.

In summary, the TDM policies and programs of the General Plan should be designed to include commitments to specific TDM programs with clear delineation of responsibilities, trip reduction targets, financial arrangements, and specific schedules for action on each specific measure.

STATE IMPLEMENTATION PLAN (SIP) CONFORMITY

A plan or project is found to be in conformance with the SIP when it has satisfied the following three criteria:

1. It improves the subregion's jobs/housing balance performance ratio or is contributing to attainment of the appropriate subregional VMT target.
2. It reduces VT and VMT to the maximum extent feasible by implementing TDM strategies.
3. The plan's environmental documentation should provide an air quality analysis which demonstrates that the plan will not have a significant negative impact on air quality in the long term.

The Draft EIR should address each of the control measures identified for implementation by local government in the AQMP/SIP and indicate how these measures are addressed in the City's General Plan. The process for determining general plan conformity with AQMP/SIP is described in Chapter IV of SCAG's "Guidelines for the Development of Local Air Quality Elements" published in March, 1990.

All mitigation measures associated with the General Plan should be monitored in accordance with AB 3180 requirements and reported to SCAG through the Annual Reasonable Further Progress Reports.

Fred

CITY OF MURRIETA

*Murrieta Greenways
39165 Silktree Drive
Murrieta, CA 92562*

AUG 14 1992

RECEIVED
PLANNING DEPT.

Mr. Stephen Harding
Planning Director
City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

August 12, 1992

Dear Mr. Harding:

Thank you for the opportunity to review the Initial Study for the General Plan EIR.

This EIR and General Plan provide an excellent opportunity to view the impact of development in an integrated fashion. I hope that the EIR will recognize the inter-relationships that exist between habitat preservation, open space, scenic qualities, topography, soils, erosion, flood hazard, ground water recharge and pedestrian, bike and equestrian trails.

By approaching these inter-related subjects in a comprehensive fashion, it will be possible to develop a plan with the minimum possible impact on the environment, lower cost to the City and taxpayers for the construction and maintenance of infrastructure and maximum utility to the citizens of Murrieta.

I would like to suggest that the following be considered as objectives and mitigation measures for the EIR.

1. Development and maintenance of all blue line streams and other jurisdictional wetlands as a linked network of greenways. These greenways would serve to:
 - a) Provide visual buffers for the community
 - b) Provide passive recreation areas
 - c) Provide habitat corridors
 - d) Provide storm water detention areas
 - e) Provide flood control
 - f) Provide ground water recharge areas
 - g) Provide safe corridors, especially for youth, connecting schools, parks, residential and commercial areas for:

- i) Pedestrian trails
 - ii) Bike trails
 - iii) Equestrian trails
 - h) Link major active recreation areas
2. Restrict development on slopes of 30 % or greater.
 3. Attempt to preserve key habitat areas.

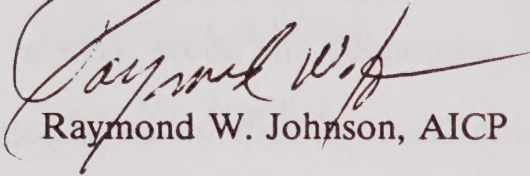
Specific measures which could be utilized to accomplish the above include:

1. Requiring the use of Planned Unit Developments for all projects involving:
 - a) Critical habitat areas or corridors
 - b) Slopes of 30 % or greater
 - c) Blue line streams or other jurisdictional wetlands
2. Allowing virtually unlimited internal project density transfers or clustering to meet environmental objectives.
3. Establishing target open space or habitat preservation areas and allowing the transfer of development rights from these parcels to other parcels.
4. Allow the permanent transfer of development rights from important agricultural areas such as citrus groves, vineyard or avocado groves.
5. Allow the purchase of properties in the Target Preservation Areas as environmental mitigation for projects.
6. Require the provision of a token amount, three percent, of all projects for developed park land. Provision of park land could be through the provision of on-site developed park areas, off-site park areas or the donation of a cash equivalent.
7. Consider the reduction in size of local residential streets, especially cul de sacs, from 36 feet on 60 feet of right of way to 28 feet on 50 feet of right of way. This provides a means of:
 - a) Reducing runoff
 - b) Increasing green area

- c) Providing a no cost source of potential common open space or part of the three percent park dedication.

I once again thank you for the opportunity to comment on the proposal for the EIR. Thank you for your consideration.

Sincerely,

A handwritten signature in dark ink, appearing to read "Raymond W. Johnson", with a long horizontal flourish extending to the right.

Raymond W. Johnson, AICP

City of Murrieta Planning Dept.
26442 Beckman Court
Murrieta CA 92562

August 13, 1992

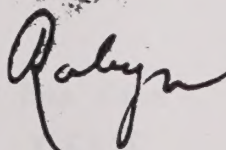
Comments on proposed Environmental Impact Report

If is EIR is to be truly representative of the entire scope of interests of Murrieta residents, then it must:

- 1...Contain all facts and figures that describe the state of the soil, water, economics, social condition and natural environment of the City and surrounding area.
- 2...Discuss alternatives to the ongoing construction of outdated and resource-damaging Public/Private facilities.
- 3...Examine the collection and storage of rainfall as a method of achieving control of the floodwaters that have damaged this City in the past.
- 4...Examine the role of other Agencies of local government, such as Riverside County Flood Control, to ascertain whether these have fulfilled their obligations or have exposed the City to additional or unnecessary expense and/or hazard.
- 5...Determine the effects of excessive drafting of local groundwater supplies.
- 6...Assess the potential for recharging local groundwater from rainfall.
- 7...Compare the models of other Cities using modern rainfall-runoff control techniques to the costs and benefits of the technology now in use and proposed for this area.
- 8...Access information in all Federal, State and local Agencies, as well as throughout the world.
- 9...Examine the potential for litigation arising from damage done to the water supplies of adjacent areas.
- 10...Examine the degree of groundwater contamination now underway and assess the proposed remediation plans of various Agencies with overlapping jurisdictions.
- 11...Explore the many alternative means of providing personal transit systems between this and local communities.
- 12...Arrive at an acceptable level of illustration in order to be fully comprehensible by the general Public.
- 13...Discuss the effects that the failures of local Water District management of water resources have had upon the present situation and upon the contamination of local aquifers by water in imported water.

I look forward to seeing all this information before further decisions are made as to the future of this City.

Robyn Reynolds
19250 St Gallen Way
Murrieta, CA 92362



August 10, 1992
City of Murrieta Planning Director

Comments re: Murrieta EIR

Sir:

The Report you are composing will not be complete if it does not cover all angles of the intricate growth management problem, all phases of water resource control-protection-enhancement, and all problems related to the movement of people and goods through the Murrieta Valley.

These are closely related problems in many ways, as multi-purpose planning has become necessary to the proper formation of any Public facility plan. As you are well aware, the evaluation and demonstration of all data is a prerequisite to sensible contemplation of various planning approaches. I cannot stress too strongly the value of the broadest possible data base for this planning process. The people of Murrieta will not be able to input properly to this plan of theirs unless you see to it that all data is given to them in a form they can comprehend easily and in a location that all can readily visit.

The 'common people' do not need degrees in rocket science to perceive the best planning approaches and to prescribe the actions they are willing to fund. The broadest form of planning must, in fact, be left to the People, as all or any hired and elected officials are too readily swayed by the agents of Private interests, who spend a disproportionate amount of time in the presence of these officials.

The people do know what they want and it is the job of their Officials to properly translate this want into reality. The Planning Director will best perform this translation by furnishing a receptive ear to the wishes of each person, then creating a draft plan that can be viewed from all sides by the people for final molding into an accurate representation of the true 'Will of the People.' The EIR to be created can be accurate only if its creators remember that their job is to act for the majority of residents. It can be complete only if disinterested officials from State and Federal Agencies will bring their expertise in all major disciplines into this planning process.

Please remain sensitive to the needs of all of the people as you perform the Environmental analysis and during all of this General Planning process.

Beth and Robert Doane

2727 De Anza Road - J-24
San Diego, CA 92109

August 6, 1992

Stephen Harding, Planning Director City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

Dear Sir,

Your notice of preparation of a General Plan and Environmental Impact Report may be in compliance with the words of California law, but it certainly does not reflect the spirit of our lawmakers when they created this Law.

The California Environmental Quality Act was intended to provide the Public with the final voice in determining their future well-being. Legislators recognized that no group of Planners, no matter how skilled and well-meaning, could address all details of the Environment as well as an informed and concerned Public. They therefore set up a mechanism to allow every resident to affect the final outcome of a planning process.

The very limited exposure and availability of your Notice has deprived many residents of an opportunity to add their views to the scoping and the content of this analysis. While you may feel it is too late to rectify the lack of publicizing of the Notice, please note this comment for future reference should further actions not receive the fullest Public Notice and display.

I request that you expand the scope of your Report to cover all facets of life within the entire Santa Margarita River Basin and in every adjacent or remote location that affects this City.

I ask that you take note of the effect of the thousands of tons of salts imported each year to this Basin along with water from the Colorado River. Much of this salt must be eliminated, at considerable expense, before the water may be used or disposed of. The EIR you are to formulate should address every aspect of this issue and should examine every alternative solution that could have an impact upon our community. This EIR should discuss alternatives such as: funding the Upper Colorado River Salinity Program, building solar ponds to utilize brine, creating salt evaporation ponds, maximizing local capture and storage of rainfall, increasing Public land irrigation with contaminated local wellwater, etc. There are many other alternatives or variations and combinations of those I have named. All should be considered in the light of the uncertain water supply of this City.

Page 11

2. The General Plan must deal with all elements of water resource management. The water flowing down the Santa Margarita River is a primary source of supply for residents of Fallbrook and Camp Pendleton. If Murrieta fails to recharge local aquifers or overdrafts existing supplies as Temecula is doing, then downstream residents are deprived of the lost or wasted water. When they become fully aware of their rights and of the extent of their losses, they have more than adequate grounds for legal action to recover damages. With heightened awareness of their right to protection from avoidable increases in floodwater they may, soon demand that State and County regulations be enforced. As they identify and quantify the pollutants in the Waters of the US which flow to them they will inevitably act to have the US Army Corps of Engineers fulfill its delegated responsibilities in protecting these waters. They may also be expected to move toward causing the CA Environmental Protection Agency to act more aggressively to enforce the flagrant disregard of its regulations that is evident throughout this Valley. The potentially enormous costs of these actions by downstream residents makes it imperative that all avenues of water resource management be explored before a General Plan commits this City to building unneeded or prematurely obsolete facilities.

Just as our actions impact the water supplies of downstream areas, it should be recognized that the residents of Sage or Winchester can affect the quantity and the quality of our water supplies. We have a vested interest in acting to prevent their waste of water that would otherwise be added to our supplies. The General Plan should address their planning and design of roadways as stormwater impoundments wherever appropriate. The failure of the County to incorporate multiple-purpose planning in East Benton Road will allow over 1000 acre-feet of rainfall to join the floodwaters that threaten Murrieta. These waters could have been trapped and stored away by the use of simple and inexpensive technology already standard in Counties near to this one. This EIR should identify all opportunities for upstream rainfall runoff control and provide for careful consideration of every planning alternative. It should explore every possibility throughout the Basin to reduce downstream flooding, prevent groundwater contamination and recharge underground reservoirs.

Page III

The General Plan should deal with the latest innovations in travel and material transportation. It should consider the use of elevated light rail systems capable of utilizing existing roadways and of traversing the mountainous areas adjacent to this Valley. Every form of personal local travel should be included in the considerations being given to the present and future Environment.

Past, present and projected rights of pedestrian traffic should be exhaustively examined as a means of providing safer, more affordable and more convenient area-wide travel.

Recognition of the rights of senior citizens who are unable to access highways they have helped to fund should be addressed in this EIR wherever the General Plan touches upon land uses that could contribute to broader opportunities for secondary travel routes. Providing golf carts and handicapped vehicles a travelway network similar to that of the major automotive roadways should be carefully explored in the EIR. A community-wide equestrian travel system should be considered wherever appropriate.

The EIR should discuss the potential for Public use of all Public lands as well as every watercourse, utility easement and highway ROW. Recreational areas, parks, paths, trails, busways and greenbelts should be considered as uses for available property to reduce the burden of purchasing land for Public use and to avoid removing land from a taxable status.

The environmental analysis should not limit itself to known and traditional methods of planning. It should be formulated by experts in every field, working closely together with the best data at hand, in close communication with the Public. It should provide room for every approach to building the most beneficial plan for Murrieta.

The analysis should provide the Public with a clear view of the various concepts involved in planning for the best utilization, preservation and protection of their Public resources. It should give them the sources of detailed information that they need to investigate areas of particular interest to them. It should identify all economic, social and natural environmental costs of all potential actions that are open to the community's planners. It should recognize and illustrate all prospective benefits that could be realized through the implementation of the Best Available Technology and the Best Management Practices currently used in many similar areas.

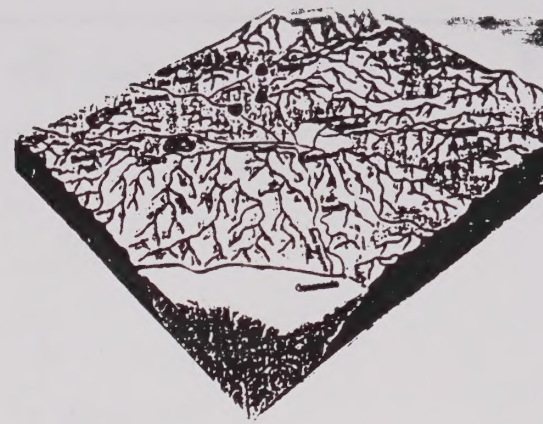
TED WHITE
c/o James Warple

Citizens for responsible Watershed Management
27120 El Rancho Arroyo
Sun City, CA 92576

SANTA MARGARITA RIVER

WATERSHED MANAGEMENT PROJECT

27120 El Rancho Drive Sun City CA 92586
(714) 672-0531 FAX (714) 766-6035



August 6, 1992
Greenbelt Committee
26969 Fairlane
Sun City CA 92586

Stephen Harding, Planning Director City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

Comments on the Notice of Preparation of the
CITY OF MURRIETA GENERAL PLAN AND ENVIRONMENTAL IMPACT REPORT

1...The Master Environmental Assessment (MEA) should be prepared by the most highly qualified 'Outside' experts available. These persons should be chosen by random selection from a list of appropriate private firms. The firm selected should be insulated in every possible way from influence by special interests.

2...The MEA should incorporate all pertinent studies and background information available in Federal and State Agencies. It should include MEAs from areas with similar characteristics of weather, soils and topography. It should include studies performed by Private firms in many similar areas. It should include studies by Universities in this State, in other States, and in similar areas worldwide. It should provide all related data presented by local citizens and Agencies.

3...All of the information of the MEA should be made available to the Public in easily comprehensible form at many easily accessible locations during convenient times.

Signs should be posted on all major roadways to provide meeting dates, locations and agendas.

Billboards should encourage Public participation.

Full-page ads should be taken out at regular intervals.

Television and Radio Public Service announcements should be used to the maximum.

Local newspapers should be given the opportunity to publish informational articles on a regular basis.

The entire Process should be publicized in every possible way including delivery of information packets, produced by City Staff working with local groups, to every organization, school and Agency in the City and in adjacent areas.

4...The Public should have an opportunity to comment upon the responses in the Draft EIR before the final EIR is prepared.

5...A newsletter should be published for all organizations and schools by City Staff to keep them abreast of ongoing formulation of all documents.

CITY OF MURRIETA

AUG 14 1992

J Marple

**RECEIVED
PLANNING DEPT.**

August 12, 1992

CITY OF MURRIETA

AUG 14 1992

RECEIVED
PLANNING DEPT.

Stephen Harding
Planning Director, City of Murrieta
26442 Beckman Ct
Murrieta, CA 92562

Dear Sir;

The Elsinore/Murrieta/Anza Resource Conservation District is a legal subdivision of the State, with the appointed task of protecting, preserving and providing for the beneficial utilization of Public resources.

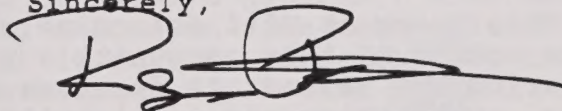
As representatives of over 80,000 residents of this and adjacent watersheds, we consider it imperative that you use every possible avenue to acquire, integrate, illustrate and present all information related to the management of those resources of the Public that lie within your control.

The Environmental Impact Report that you construct should incorporate every study, report, opinion, viewpoint, suggestion or other applicable source of information that can be brought to bear on this subject.

As Planning Director, you have a responsibility to bring in the most highly qualified consultants available in order to give local residents an opportunity to view all reasonable planning concepts and every alternative solution to each problem. This Report will affect the future of all residents of this City and of adjacent communities throughout the Santa Margarita River Basin. We wish to ensure that it be as broadly scoped and that it contains as much information as is reasonably possible. To this end, our Agency will be fully cooperative in providing relevant data that we have assembled from a variety of sources, as well as additional studies or expert opinions from various State/Federal Agencies which may be needed to demonstrate resource conservation alternatives from a Watershed Management perspective.

Please feel free to visit our new office on Washington Street or to contact me per the attached card.

Sincerely,



Roger Pitkin, for EMA/RCD



CITIZENS for RESPONSIBLE WATERSHED MANAGEMENT

James Marple

27120 El Rancho Dr, Sun City CA 92586 714/672-0531

Stephen Harding, Planning Director
City of Murrieta 26442 Beckman Ct
Murrieta CA 92562

July 23, 1992

Comments on 7/8/92 NOTICE OF PREPARATION OF A GENERAL PLAN
AND ENVIRONMENTAL IMPACT REPORT (received 7/16/92)

A. When will the 'Buildout Scenario' referred to in the
NOTICE OF PREPARATION be available to the Public to allow
informed input to the General Planning process?

B. Will the Environmental Analysis be prepared by or in
conjunction with 'Outside' Public Agencies (such as the CA
University System) to assure adequate expertise and a
relatively unbiased approach for the gathering, integrating
and illustration of all related data?

C. Will the General Plan E I R explore alternatives to the
present policies of the City in enough detail to provide the
Public with useful information to formulate questions or to
provide useful critiques for the final General Plan?

D. Will the Public have more opportunity to know about and
contribute to the final E I R than they were given in the
case of this Notice of Preparation? (For example, full-page
ads listing purpose and impact of E I R, signs on major
roadways into City notifying Public of dates and purposes of
meetings, TV/Radio Public notices etc.) Was all pertinent
data made available in a Public Library in a timely fashion,
with the Public properly informed of this availability as
noted above?

This Document will determine, to a large extent, the
entire course of this community's progress for the next
generation and beyond. It deserves no less than the widest
notice, circulation and availability that the elected
and appointed servants of the Public can arrange.

MURRGP92

James Marple

James Marple
for CRWM

CITY OF MURRIETA

AUG 14 1992

RECEIVED
PLANNING DEPT.

DEPARTMENT OF CONSERVATION

DIVISION OF ADMINISTRATION
DIVISION OF MINES AND GEOLOGY
DIVISION OF OIL AND GAS
DIVISION OF RECYCLING

CITY OF MURRIETA

AUG 21 1992

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801 K Street, MS 24-01
Sacramento, CA 95814-3528
Phone (916) 322-1080
FAX (916) 445-0732
(916) 445-8733

August 18, 1992

Mr. Steve Harding
City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

Subject: Notice of Preparation (NOP) of a Draft Environmental
Impact Report (DEIR) for the Draft Murrieta General
Plan, SCH# 92072047

Thank you for forwarding the NOP for the above-referenced project. The Department of Conservation's Division of Mines and Geology (DMG) has special expertise in evaluating geologic and seismic hazards, and mineral resource issues. We have reviewed the NOP for the City of Murrieta's first General Plan in accordance with CEQA, and we may also regard the document as a request for information for the city's Safety Element pursuant to Government Code 65302(g). Please feel free to consult us for technical advice on geologic/ seismic issues pertinent to your Safety Element preparation.

DMG recommends that the Safety Element contain estimations of the seismic damage potential of each of the active faults capable of giving rise to earthquakes damaging to the City. Damage potential may be expressed in terms of calculated peak acceleration and estimated duration of shaking, and other factors that could exacerbate earthquake effects. Areas of thick, unconsolidated sediments or alluvium, which could amplify ground motion and extend duration of shaking, should be identified and plotted on a map of geologic or seismic hazards. Area underlain by low density sand and silt, saturated with water within 50 feet of the surface may be subject to seismic liquefaction, and these too should be plotted on the hazards map.

Areas susceptible to wild fires and those susceptible to flooding and dam failure inundation should also be discussed. The NOP is very clearly written and shows a good understanding of water-related issues and treatment of active faults (Alquist-Priolo Special Studies Zones Act).

Mr. Harding
August 18, 1992
Page Two

If you have any questions regarding these comments, please contact Roger Martin, Environmental Review Project Manager, at (916) 322-2562.

Sincerely,

Deborah L. Herrmann

Deborah L. Herrmann
Environmental Program Coordinator



FRANKLIN E. SHERKOW
Director of Transportation

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT

PLANNING AND DEVELOPMENT REVIEW DIVISION

August 11, 1992

Stephen Harding, Planning Director
City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

CITY OF MURRIETA

AUG 21 1992

RECEIVED
PLANNING DEPT.

Re: City of Murrieta General Plan

Dear Mr. Harding:

Thank you for the Notice of Preparation of a General Plan and Draft Environmental Impact Report (EIR) that is being prepared by your agency.

The County of Riverside Transportation Department recommends that any potential impacts to both County maintained roads and regional circulation systems be avoided or be properly discussed and mitigated in the Draft EIR.

This Department responded to a request by your City regarding the northerly extension of Jefferson Avenue to Clinton Keith Road in a letter addressed to Ben N. Minamide dated August 10, 1992. We recommend that the proposed extension be addressed through the Circulation Element of the City General Plan. Additionally, we would recommend that the City of Murrieta should consult with our Department to determine the extent of traffic impacts and required mitigation.

We look forward to continued discussions with your City relative to transportation issues of mutual concern.

Should you have questions, please do not hesitate to contact Martha Tarlton, Senior Transportation Planner at (714) 275-6772 or Sian Roman, Planner III at (714) 275-6874.

Sincerely,

Edwin Studor,
Transportation Planning Manager

ES:SR:jg

Post-It™ brand fax transmittal memo 7671		# of pages > 1
To <i>Karen Adams / Jay Ziff</i>	From <i>Edwin Studor</i>	
Co. <i>Lightfoot & Co. / EIR Advisors</i>	Co. <i>City of Murrieta</i>	
Dept.	Phone #	
Fax #	Fax #	



Ruth Planey
25205 Via Las Lomas • Murrieta • CA 92562
(714) 677-4472

August 19, 1992

CITY OF MURRIETA

AUG 24 1992

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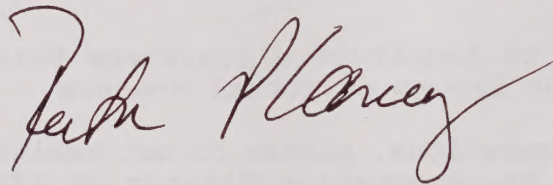
City of Murrieta
Stephen Harding, Planning Director
26422 Beckman Court
Murrieta, CA 92562

Stephen Harding,

I apologize for not sending this to you sooner. I know that it is important to submit our ideas to you as soon as possible in the process, but I just learned about the tentative EIR and the opportunity for citizens to give their input.

The accompanying letter contains some of the concerns I have with the tentative EIR and as a result I would like to see an assessment done to evaluate these particular areas.

Thank you for your time and consideration.



cc
EIP Associates, Jay Ziff
Lightfoot Planning Group, George Williamson and Karen B. Adams

Ruth Planey
25205 Via Las Lomas • Murrieta • CA 92562
(714) 677-4472

August 19, 1992

Re: Environmental Impact Report

As a resident of Murrieta I am concerned about the impact development of all kinds will have on the residents, their quality of life and our natural resources. I am not alone in my concern. Many of the items I have listed here were mentioned during the five workshops held as part of the General Plan Process.

The following are some of the areas I would like to see evaluated in the EIR process:

- Evaluation and restoration of the Yoder Creek and its tributaries which drains from the Murrieta Hogbacks in the Los Alamos District through the Golden Triangle and eventually into the Murrieta Creek.
- Preservation of the existing rural residential land uses in Murrieta.
- Replanting of native trees and other vegetation as part of the required landscaping around new developments. The landscaping should be at least 75% evergreen species. The landscaping should be heavily done, so that it doesn't take 10 years before it looks established.
- An off-road pedestrian/equestrian path from downtown Murrieta and Murrieta Creek to the Lake Skinner recreational area.
- Preserve the hillsides. Retain the natural contours of the land to add diversity to the landscape and minimize flooding downstream.
- Analyze the use of density transfer and downzoning to alleviate the disproportionate amount of commercial, and high density residential land use in Murrieta.

Of particular concern is the area in the Golden Triangle in between the two freeways. After attending the workshop set up for the residents between I-15 and I-215 I would like to reiterate some of the comments made by the people that night plus some of my own. I have advocated from the beginning that a compromise solution could be brought about if we all worked together. I think this proposal might satisfy both those who want to continue living in the triangle and those who want to rezone their land to commercial, sell and then move.

- Evaluate the continued use of "McElroy's" airport in the Golden Triangle with the possibility of the homes in that immediate area becoming a selective community catering to private pilots. Commercial businesses such as airplane supplies and repair could be located along the strip.

- Evaluate the use of the Golden Triangle for a golf course, hotel, library, police headquarters, city hall and other city governmental offices. Please refer to the enclosed map.

- A large **Hotel** that would have space for meetings and small conventions would be located near the intersection of I-15 and Murrieta Hot Springs Road across from the Mall thus giving easy access to the Mall to those staying at the hotel.

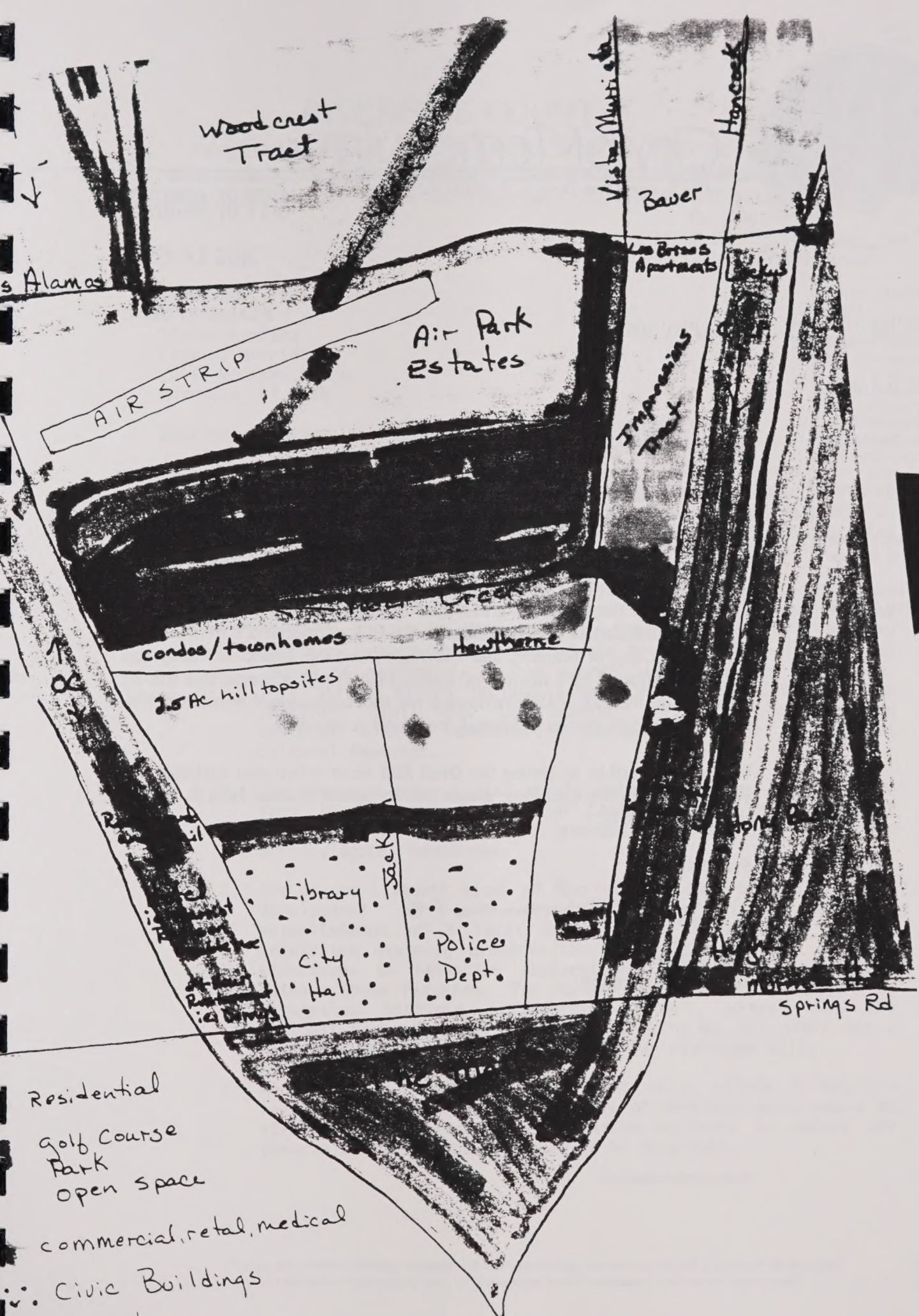
- In between the Hotel and Sharp Hospital would be all the **City Center** which would house the **Library, City Hall** and all its various departments, and **Police Headquarters**. Everything should be centrally located and the area in between the two major freeways is the perfect spot.

- The area running between I-15 and Monroe would be office commercial, commercial and retail providing supporting services for the city government, and the out of town guests staying at the hotel.

- All of the hilltops in the Golden Triangle would be 2.5 minimum acre homesites. If the zoning changed, there would be a 50 acre minimum per project, underground parking would be mandatory, and building height would be restricted to 2 stories.

- An 18 hole golf course averaging, 110-150 acres, would cover the flat area, from the Yoder Creek up and possibly including the airport, and from Monroe to the tract homes in Impressions. Condos and townhomes would run along the side farthest from the airport in hopes that the airport could be retained. If not, then condos and townhomes would circle the golf course and the housing density would decrease as it fanned out and the lots crept up the hillside or reached Los Alamos Road. Building height along Los Alamos would be restricted to 2 stories.

Jack Roney



Woodcrest Tract

Air Park Estates

AIR STRIP

condos/townhomes

2.5 Ac hilltop sites

Library

City Hall

Police Dept.

Bauer

Los Brios Apartments

Impressions Tract

Hancock

Springs Rd

Residential

Golf Course

Park

Open Space

commercial, retail, medical

Civic Buildings

not to scale



City of Temecula

43174 Business Park Drive • Temecula, California 92590

CITY OF MURRIETA

AUG 26 1992

**RECEIVED
PLANNING DEPT.**

Patricia H. Birdsall
Mayor

Karel F. Lindemans
Mayor Pro Tem

Ronald J. Parks
Councilmember

Peg Moore
Councilmember

J. Sal Muñoz
Councilmember

David F. Dixon
City Manager

(714) 694-1989
FAX (714) 694-1999

August 20, 1992

Stephen Harding
Planning Director
City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

Dear Mr. Harding:

Thank you for the opportunity to review the Initial Study Checklist for the Environmental Impact Report (EIR) for the City of Murrieta's first General Plan. The Cities of Murrieta and Temecula share the Temecula Valley and are jointly affected by a number of regional issues and concerns that will be addressed in the EIR. After reviewing the above mentioned document, The City of Temecula has no additional comments at this time.

We look forward to reviewing the Draft EIR when it becomes available. If you have any future questions, please contact Senior Planner John R. Meyer at (714) 694-6400.

Sincerely,

Gary Thornhill
Director of Planning

klb

Fred

RIVERSIDE COUNTY
Regional Park And Open-Space District

4600 Crestmore Road • P.O. Box 3507 • Riverside, CA 92519-3507 • (714) 275-4310

Fax (714) 684-7044

PAUL D. ROMERO

General Manager



August 25, 1992

Steven Harding
City of Murrieta
26442 Beckman Place
Murrieta, CA 92362

CITY OF MURRIETA

AUG 28 1992

Dear Mr. Harding:

RECEIVED
PLANNING DEPT.

I am responding to you regarding the Notice of Preparation for the General Plan for the city of Murrieta. There are many historic structures located within this project area, and development may have an impact on them. Additionally, I would like to suggest the incorporation of these elements in the new general plan:

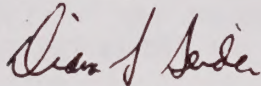
1. Review the current County historic resources survey and file for the State Historic Resources Inventory located at the Riverside County Regional Park and Open-Space District, History Division. An updated survey of the historic sites in Murrieta should be performed, as the current survey is ten years old. This survey should include structures, trails (such as the Immigrant Trail and the Sonoran Trail), Native American cultural sites, landscape elements and other significant cultural features.
2. The proposed general plan should receive a review and clearance from the Eastern Information Center at the University of California, Riverside, for procedures regarding impacts to archaeological resources.
3. The unique historic sites of Murrieta indicate the value of the development of an historic preservation ordinance, establishment of a local preservation review board and an integrated historic preservation approach that would consider structures to landscape features and establish a connection between these features. For further reference on conducting an integrated historic preservation report, please see the National Parks National Reference Bulletin No. 30; there are a number of model ordinances available for review as well.
4. Additionally, there are significant sites within a two-mile radius of the boundary of the city of Murrieta which would be affected by development. Mitigation measures to reduce the impacts on the sites would need to be developed.

The following sites may be eligible for National Register status.

- a. Rancho Santa Rosa--a Riverside County Landmark, State Point of Historic Interest and a registered California landmark.
- b. Gunther's Murrieta Hot Springs
- c. Menifee Archaeological Preserve

If you need further assistance, please do not hesitate to contact our office.

Sincerely,



Diana L. Seider
History Division Director

DLS/3237S/g



Riverside County Service Area 143
JEANINE R. OVERSON, DIRECTOR

29377 Rancho California Road, Suite 100 - Temecula, CA 92591-5206
(714) 699-0235
Fax: (714) 699-4390

August 25, 1992

CITY OF MURRIETA

AUG 27 1992

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PLANNING DEPT.

Mr. Stephen Harding
Planning Director
City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

RE: City of Murrieta General Plan

Dear Mr. Harding:

CSA 143 has received and reviewed the Initial Study completed for the above referenced project. We are in agreement with the findings listed and feel it covers all areas of concern.

The initial contact person to forward correspondence or requests for information would be the Director of CSA 143, Jeanine R. Overson.

Very truly yours,

RIVERSIDE COUNTY SERVICE AREA 143
Jeanine R. Overson, Director

Robert M. Kast
Landscape and Maintenance Supervisor

Post-It™ brand fax transmittal memo 7671		# of pages > 1
To	Jay Ziff	
Co.	EIP Assoc.	
Dept.		
Fax #		
From	Fred Burr	
Co.	City of Murrieta	
Phone #		
Fax #		

CITY OF MURRIETA

NOV - 6 1992

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ALUC

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

EDA/Aviation - French Valley Airport, Box 1,2,3, 37552 Winchester Rd, Murrieta, CA 92563

Telephone: (714) 677-2307 FAX: (714) 677-1478

November 2, 1992

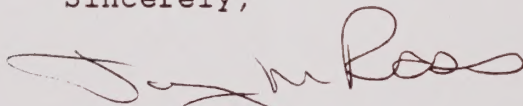
Stephen G. Harding, Planning Director
City of Murrieta
26442 Beckman Court
Murrieta, CA 92562

Dear Mr. Harding:

Thank you for the opportunity to submit comments to the City of Murrieta General Plan Notice of Preparation. The original submittal of July 8, 1992 appeared that the City limits would not be affected by the French Valley Airport Draft Comprehensive Airport Land Use Plan or current interim influenced area. In your supplemental information to the Notice of Preparation dated October 12, 1992, it appears the sphere of influence may be affected by the Comprehensive Airport Land Use Plan due to the aircraft transitioning the area. The City's General Plan should identify the Comprehensive Airport Land Use Plan policies (upon adoption) within the areas affected (Sphere of Influence).

I sent a copy of the Draft Comprehensive Airport Land Use Plan to your office on October 8, 1992. Please feel free to contact me if you need an additional copy or additional information.

Sincerely,



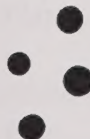
Judy M. Ross
Assistant Director
EDA/Aviation Division

JMR:sa

FISCAL ANALYSIS OF THE MURRIETA GENERAL PLAN - LAND USE PLAN ALTERNATIVES

**Prepared for:
CITY OF MURRIETA**

July 1993



ALFRED GOBAR ASSOCIATES

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CHAPTER I

INTRODUCTION

Land use policy of the General Plan affects fiscal resources available to the City and consequent ability to meet public service and maintenance obligations such as police protection, road and infrastructure maintenance, population-based services, etc. A fundamental objective of General Plan land use policy is to provide guideline direction regarding alternative forms of land use and related activities. Such guideline policies also have an effect on inherent levels of fiscal revenues generated by land use development and related activities as well as public service demands the City must address within its normal operating structure. This fiscal analysis evaluates several revenue and cost components describing the City's operating structure which are applicable to different forms of land use included within the scope of land use designations of the General Plan. Specifically, four General Plan land use policy alternatives each with a distinct mix and allocation of land use are evaluated with respect to probable fiscal implications concerning the City of Murrieta's ability to meet public service obligations. The four General Plan land use policy alternatives evaluated are identified as follows:

- Alternative 1 - County Approved Southwest Area Plan (SWAP)
- Alternative 2 - Citizen Advisory Committee/Specific Plan Modifications of SWAP
- Alternative 3 - Preferred Plan of GPAC and Consultants
- Alternative 4 - No Project/Existing Conditions Report

The geographic scope of the General Plan land use policy alternatives is not limited to the existing City limit boundaries of approximately 17,000 acres. Because the General Plan is a long-term policy document intended to guide and direct the character of future growth, the planning policy scope also includes the City's sphere of influence - areas not yet within the existing City boundary but representing probable

future service responsibility of the City. Consequently, the four General Plan land use alternatives evaluated by this fiscal analysis include land use designations covering an area of approximately 28,650 acres or 44.76 square miles.

Specific land use designations describing the General Plan alternatives include a wide variety of development and related activity. Development assumptions used to characterize land use factors that affect fiscal revenue and cost structures of the City of Murrieta are described in Exhibit I-1 according to the varied specific land use designations. As shown, a wide variety of land use designations are represented within the policy scope and objectives of the General Plan. Excluded from the identified listing of land use designations is a designation for streets and roadways. Fiscal cost implications related to streets and roadways are included as a fiscal component of each specific land use designation according to the probable amount of roadway area created per acre increment of land use and development. Exhibit I-1 describes the development intensity and improvement characteristics of each land use designation as well as percentage share of roadway created per acre increment of development, resident population generated, and average value of improvement. Specific land use acreage allocations proposed by each General Plan land use policy alternative is included in Chapter II - Comparative Analysis and Conclusions. The probable effect each land use designation will have on specific component of fiscal revenue and cost is discussed in Chapter III - Fiscal Revenues and Costs.

A primary objective of this fiscal analysis is to identify the probable long-term fiscal implication of alternative land use policy strategies, each with its own allocation of land use acreage. The analytical approach employed for this study first identifies the net fiscal implication per acre equivalent of development for each specific land use designation which may be included in a given General Plan land use policy alternative. The net fiscal implication per acre increment of development is then applied to the corresponding acreage allocated by each policy alternative for the given land use

designation. Specific components of fiscal revenue and cost addressed by this analysis include the following:

Revenues

1. Property Tax
2. Retail Sales Tax
3. Transient Occupancy Tax
4. Business License Fees
5. Franchise Tax Fees
6. Property Transfer Tax
7. Per Capita Revenue

Cost

1. Police Protection
2. Fire Protection
3. Roadway and Infrastructure
4. Parks and Recreation
5. Population-Based Services
6. Government Administration and Overhead

After identifying the net probable effect on individual fiscal revenue and cost components per acre increment of development, the net fiscal effect for a given land use designation is described as a net sum relationship between revenues and costs (revenues less cost equals net effect). Depending on the given land use designation, the net fiscal effect may represent a long-term annual benefit (revenues generated exceed cost obligations created) or long-term cost obligation (cost obligations created exceed revenues generated).

All fiscal determinations of this analysis represent a relative measure of fiscal solvency created by long-term land use policy in relation to existing operating structures of the City of Murrieta. That is, the relative ability of an alternative mix of land use to satisfy current service obligations of the City; satisfy continuing demand for increased public services; satisfy future service obligations within expanded service boundaries of the City; and ability to meet increasing cost of maintaining services despite institutional restrictions on fiscal revenue growth potential. The fiscal analysis

assumes future land uses will be developed only when there exists sufficient market-based support for the related land use activity (residential living, shopping, employment, etc.). Development assumptions describing value and performance limits of activities associated with each land use designation (residential housing value, retail sales per square foot, room rates, utility consumption costs, etc.) reflect the Consultant's estimate of market-based parameters described in current 1993 dollars. As a result, fiscal determinations of this analysis as directed to each land use policy alternative upon buildout are also described in current 1993 dollars.

EXHIBIT I - 1

Development Assumptions Per Acre of Land Use Designation
City of Murrieta General Plan

General Plan Land Use Designation	Development Intensity	Improvement Characteristics	Roadway As % Share of Gross Acreage	Resident Population Per Acre (2.86 Per/Hshld)	Average Improvement Value	
					Unit Increment	Per Acre of Development (1993 Dollars)
Residential	(DU's/Acre)	(Min. Lot Size)			(Dwelling Unit)	
Equestrian	0.32	2.50 Ac.	15.0	0.92	\$500,000	\$160,000
Rural	1.60	0.50 Ac.	20.0	4.58	375,000	600,000
Single Family 1	4.00	0.17 Ac.	26.0	11.44	168,000	672,000
Single Family 2	8.00	0.11 Ac.	30.0	22.88	140,000	1,120,000
Multi Family 1	12.00	5.00 Ac.	20.0	34.32	98,000	1,176,000
Multi Family 2	16.00	5.00 Ac.	15.0	45.76	80,000	1,280,000
Commercial	(F.A.R.)	(Sq. Ft. of Bldg./Ac.)			(Sq. Ft. of Bldg.)	
Regional	0.25	10,890	20.0	-	\$156	\$1,700,000
Community	0.25	10,890	20.0	-	138	1,500,000
Neighborhood	0.25	10,890	20.0	-	119	1,300,000
Resort/Recreation	0.30	13,068	15.0	-	92	1,200,000
- Hotel Complex	0.40	40 Rooms/Ac.	15.0	-	103	1,800,000
- Amusement Type	-	-	15.0	-	-	900,000
Professional	0.50	21,780	15.0	-	129	2,800,000
- Garden Style	0.35	15,246	15.0	-	115	1,750,000
Mixed Use (50/50)	0.40	17,424	15.0	-	92	1,600,000
- Commercial (60% Retail)	0.30 FAR	13,068	15.0	-	138	1,800,000
- Residential	20 DU's/Ac.	-	15.0	57.20	70,000 Unit	1,400,000
Industrial						
Light	0.40	17,424	15.0	-	\$52	\$900,000
General	0.40	17,424	15.0	-	52	900,000
Other Uses						
Civic	0.18	7,841	20.0	-	\$166	\$1,300,000
- Administrative	0.25	10,890	20.0	-	147	1,600,000
- Schools	0.12	5,227	15.0	-	182	950,000
Open Space	-	-	2.0	-	-	2,000
- Natural	-	-	2.0	-	-	2,000
- Landscaped Slopes	-	-	2.0	-	-	200,000
Parks	-	-	15.0	-	-	400,000
Agric./Farm./Mining	-	-	2.0	-	-	5,000
Reserve	-	-	2.0	-	-	2,000

Source: Alfred Gobar Associates

CHAPTER II

COMPARATIVE ANALYSIS AND CONCLUSIONS

Physical development and related activities associated with distinct land use designations of the General Plan have an effect on fiscal revenue and cost structures of the City of Murrieta. The net fiscal implication per acre increment of designated land use is summarized in Exhibit II-1. As shown, the full range of land use designation representing four General Plan land use plan alternatives is described with respect to the fiscal effect on individual revenue and cost components. The net effect on individual revenue and cost components characterizing the City's operating structure is described as a net fiscal benefit or cost per acre equivalent of land use designation. The relationship between revenue streams generated and cost obligations created is also shown and described as a ratio. Land use designations which have the ability to generate revenue which exceeds associated service cost obligations result in a net fiscal benefit to the City. The extent to which development and related activities associated with a given land use designation generate revenue in excess of cost reflects the fiscal efficiency of that given designation. The greater the revenue/cost ratio identified, the more fiscal efficient the designated land use.

As shown in Exhibit II-1, not all land use designations that may be ultimately designated within the scope of the General Plan land use policy generate a net fiscal benefit per acre of land use development. Within the spectrum of possible land use designations, commercial land uses involving a strong retailing emphasis are the most fiscally efficient per acre increment of development. An acre equivalent of hotel development represents the most fiscally efficient land use among all possible designations. In contrast to common perceptions about fiscal performance of office space development, this type of land use designation is the least efficient of all

commercial development involving building improvements. This is due primarily to a low overall effective property tax rate generating revenue for the City of Murrieta (equal to 3.8 percent of the basic 1.0 percent property tax levy). Light and general industrial land use designations represent a net fiscal benefit to the City due in part to a high level of utility consumption associated with manufacturing-type businesses and limited police protection requirements characterizing industrial development. Future industrial development occupied by warehousing and distribution centers would affect the fiscal performance identified by this analysis. Industrial land use characterized primarily by warehousing and distribution facilities would reduce expected levels of revenue associated with business license fees and franchise tax fees and reduce the overall fiscal benefit per acre equivalent of development to approximately \$100 per acre per year with a corresponding revenue/cost ratio of 1.24:1.00.

Within market and design parameters describing housing product of Southwest Riverside County and the Temecula Valley area, residential development represents a fiscally efficient activity. The positive fiscal implication of residential land use designations is somewhat uncharacteristic given competitive pricing levels that must be adhered to attract a high proportion of commuter households and low to moderate densities characterizing the rural and suburban lifestyle of this region. Factors which contribute to a positive fiscal benefit associated with most forms of residential land use include expected ability to capture a high percentage (80.0 percent) of taxable household expenditures by City-based establishments, and the absence of fire protection and parks and recreation service cost obligations which remain under the operating scope of legally and financially separate service agencies. Only the equestrian land use designation results in a net annual fiscal cost based on the City's current operating structure and reflects the need to provide services characterizing a suburban and urban environment in a rural setting.

Civic/governmental, open space, public park, and agricultural land use designations commonly represent a net fiscal cost to cities. The net cost associated with such activities is generally due to legal exemptions or preferential status that diminishes fiscal revenue-generating capacity, such as property tax exemptions or Williams Act relief, without the benefit of similar exemption regarding public service demands generated by such land use activity itself. Due to exemptions and preferential status given to most governmental facilities such as schools, administrative centers and public parks, revenue-generating capacity is restricted even though the value of improvements and on-site operations represent significant economic activity. Conversely, however, such forms of land use also require significant police protection and generate roadway and infrastructure maintenance obligations. With the exception of privately held landscaped slopes and improved open space, natural open space, farming activities, and reserve properties are most affected by maintenance obligations associated with an expanding circulation network necessary to support suburban and urban densities of a growing community. As a result, the cost obligation assigned to these forms of land use represents a shared cost contribution by all properties within the City's jurisdictional boundary.

As evidenced above, not all land use designations supporting a policy framework that directs long-term growth or accommodates community needs such as public parks, schools, natural open space, etc., are fiscally efficient from an economic perspective. The net fiscal implication for any individual incremental of land use activity associated with a given General Plan land use designation, however, is subordinate to the overall effect created by a Citywide policy of land use. That is, the litmus test for each General Plan alternative is the fiscal effect resulting from an overall program of land use policy that seeks to influence the land use character and mix of fiscally efficient and not-so-efficient land use activity in order to benefit the community and achieve desired goals. Four General Plan land use policy alternatives representing

distinct long-term strategies to influence the mix and character of land use within the City of Murrieta and its sphere of influence are described from a fiscal perspective in Exhibit II-2. As shown, the net fiscal effect resulting upon buildout of each General Plan alternative is affected by the amount of designated acreage allocated to each specific land use designation. Each General Plan alternative emphasizes or de-emphasizes a particular form of land use which in turn affects the net fiscal consequence of the overall policy strategy. The net fiscal effect identified is a simple mathematical function of the net fiscal effect per acre equivalent of development and the total amount of designated acreage. For land use designations that represent a net fiscal cost to the City, the overall cost burden represented by that land use designation increases in direct proportion to acreage designated by the given General Plan alternative. For example, the equestrian land use designation represents a net fiscal cost equal to \$217 per acre equivalent of development. Alternative 1, representing the Southwest Area Plan, places significant emphasis on this form of land use and consequently represents the greatest absolute cost burden on the overall fiscal performance of a Citywide policy strategy according to Alternative 1. A fiscal revenue/cost adjustment is noted for each General Plan alternative described in summary Exhibit II-2. This adjustment reflects the fact that retail sales tax revenue generated from residential and commercial land forms to a certain degree represent two distinct manifestations of the same source of revenue. To avoid double-counting this revenue source and overstating the fiscal efficiency of each General Plan land use plan alternative, it is necessary to exclude the lesser of residential-based retail sales tax revenue or commercial-based retail sales tax revenue. The adjustment as identified represents the contribution of residential-based retail sales tax revenue to total retail sales tax revenue generated Citywide. The identified net fiscal effect and revenue/cost ratio reflects this adjustment.

The net fiscal benefit resulting upon buildout of each of these General Plan alternatives is described in constant 1993 dollars and reflects the overall long-term fiscal implication to the City's current operating structure. General Plan Alternatives 1, 2, and 3 characterize the City of Murrieta as the dominant retailing center within Temecula Valley and the greater Southwest Riverside County area. In fact, a significant portion of the net fiscal benefit resulting on an annual basis upon buildout of each General Plan alternative depends on the City's ability to exert itself as a retailing anchor within the surrounding region. Under General Plan Alternative 1, approximately \$16.6 million of the net annual fiscal benefit identified represents capture of taxable retail expenditures from business and residents located outside the identified General Plan sphere of influence. For General Plan Alternative 2, taxable retail expenditures captured from consumers beyond the General Plan sphere of influence is equal to approximately \$17.8 million of the identified net annual fiscal benefit. For Alternative 3, the source of revenue support is equal to approximately \$9.4 million. For the "No Project" alternative describing existing conditions within the City limits and General Plan sphere of influence, regional-based retail revenue manifested through community-scale centers, such as Murrieta Point Plaza, etc., is equal to an estimated \$1.2 million of the net annual fiscal benefit described for this General Plan alternative.

From an economic perspective, the optimum long-term land use planning strategy is one that maximizes net fiscal benefits generated from local area land use which can be controlled or influenced by planning policy but takes maximum advantage of fiscal opportunities represented by land use development and related activities in geographic locations beyond the existing City limit boundary; i.e., expanding housing population and employment base stimulating increased demand for goods and services offered at City-based businesses). General Plan Alternative 4 - the "No Project" alternative - provides a reasonable characterization of the community's relative

dependence upon local area and non-local area land use to generate a net annual fiscal benefit. For the "No Project" alternative, approximately 57.0 percent of the total net annual fiscal benefit (\$2.1 million) is directly attributable to retail expenditures by residents and businesses located beyond the identified sphere of influence. As a result, land use policy controlling and influencing future City growth is responsible for as much as 43.0 percent or \$900,000 of the total net annual fiscal benefit identified for General Plan Alternative 4 upon buildout. Under General Plan Alternative 1, land use policy controlling local growth contributes approximately 22.0 percent or \$4.7 million towards the total net annual fiscal benefit (\$21.3 million) identified for this General Plan alternative. Under Alternative 2, land use policy controlling local area growth contributes as much as 33.0 percent or \$8.6 million towards the total net annual fiscal benefit identified for this General Plan alternative (\$26.4 million). Under Alternative 3, "Preferred Plan," land use policy controlling local area growth contributes as much as 48.0 percent or \$8.6 million towards the net annual fiscal benefit identified for this General Plan alternative (\$8.6 million). The extent to which a given General Plan land use policy alternative can maximize the absolute and proportionate share of total net annual fiscal benefit generated by local area land use activity, such policy strategy minimizes dependence upon external factors in order to insure the City's long-term fiscal viability. General Plan Alternatives 2 and 3 both maximize the absolute level of fiscal benefit attributable to land use policy controlling local area growth (\$8.6 million), while General Plan Alternative 3 - "Preferred Plan" - maximizes the proportionate contribution implied by local area land use policy (48.0 percent) towards the total net annual fiscal benefit describing this preferred General Plan land use policy strategy.

EXHIBIT II - 1

**Summary Of Net Fiscal Implications
Per Acre Of Designated Land Use
City Of Murrieta General Plan**

Fiscal Component	Residential						Commercial		
	Equestrian	Rural	Single Family 1	Single Family 2	Multi Family 1	Multi Family 2	Regional Retail	Community Retail	Neighbor- hood Retail
Revenue:									
1. Property Tax	\$60	\$181	\$254	\$423	\$444	\$483	\$642	\$566	\$491
2. Retail Sales Tax	73	323	544	958	1,103	1,232	15,682	14,157	11,761
3. Transient Occupancy Tax	-	-	-	-	-	-	-	-	-
4. Business License Fees	-	-	-	-	-	-	545	480	628
5. Franchise Tax Fees	2	12	31	62	93	125	390	390	390
6. Property Transfer Tax	5	15	21	34	36	39	26	23	20
7. Per Capita Revenue	40	199	497	993	1,490	1,987	-	-	-
Total Revenue Per Acre	\$180	\$730	\$1,347	\$2,470	\$3,166	\$3,866	\$17,285	\$15,616	\$13,290
Cost:									
1. Police Protection	\$198	\$198	\$396	\$692	\$514	\$574	\$1,058	\$1,058	\$1,058
2. Fire Protection	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3. Roadway and Infrastructure	170	226	294	340	226	170	226	226	226
4. Parks and Recreation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
5. Population Based Services	1	6	16	32	48	65	-	-	-
Subtotal	\$369	\$430	\$706	\$1,064	\$788	\$809	\$1,284	\$1,284	\$1,284
6. Government Administration and Overhead @15.38%/2	28	33	54	82	61	62	99	99	99
Total Cost Per Acre	\$397	\$463	\$760	\$1,146	\$849	\$871	\$1,383	\$1,383	\$1,383
Net Fiscal Benefit/<Cost> Per Acre	(\$217)	\$267	\$587	\$1,324	\$2,317	\$2,995	\$15,902	\$14,233	\$11,907
Revenue/Cost Ratio	0.45:1.00	1.58:1.00	1.77:1.00	2.16:1.00	3.73:1.00	4.44:1.00	12.50:1.00	11.29:1.00	9.61:1.00

Source: Alfred Gobar Associates; City of Murrieta 1992-93 Operating Budget.

EXHIBIT II - 1 Cont.

**Summary Of Net Fiscal Implications
Per Acre Of Designated Land Use
City Of Murrieta General Plan**

Fiscal Component	Resort/Recreation			Commercial		Mixed Use			Industrial
	In General	Hotel	Amusement	In General	Garden	50/50 Mix	Commercial	Residential	Light and General
Revenue:									
1. Property Tax	\$453	\$679	\$340	\$1,057	\$660	\$604	\$679	\$528	\$340
2. Retail Sales Tax	neg'l	neg'l	neg'l	neg'l	neg'l	3,508	8,468	1,452	neg'l
3. Transient Occupancy Tax	-	26,280	-	-	-	-	-	-	-
4. Business License Fees	33	50	19	653	762	327	653	-	209
5. Franchise Tax Fees	394	415	609	639	448	445	387	155	535
6. Property Transfer Tax	18	28	14	43	27	25	28	43	14
7. Per Capita Revenue	-	-	-	-	-	1,242	-	2,484	-
Total Revenue Per Acre	\$898	\$27,452	\$982	\$2,392	\$1,897	\$6,151	\$10,215	\$4,662	\$1,098
Cost:									
1. Police Protection	\$1,058	\$1,058	\$1,058	\$1,058	\$1,058	\$816	\$1,058	\$574	\$275
2. Fire Protection	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3. Roadway and Infrastructure	170	170	170	170	170	170	170	170	170
4. Parks and Recreation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
5. Population Based Services	-	-	-	-	-	40	-	81	-
Subtotal	\$1,228	\$1,228	\$1,228	\$1,228	\$1,228	\$1,026	\$1,228	\$825	\$445
6. Government Administration and Overhead @15.38%/2	94	94	94	94	94	79	94	63	34
Total Cost Per Acre	\$1,322	\$1,322	\$1,322	\$1,322	\$1,322	\$1,105	\$1,322	\$888	\$479
Net Fiscal Benefit/<Cost> Per Acre	(\$424)	\$26,130	(\$340)	\$1,070	\$575	\$5,046	\$8,893	\$3,774	\$619
Revenue/Cost Ratio	0.68:1.00	20.76:1.00	0.74:1.00	1.81:1.00	1.43:1.00	5.57:1.00	7.72:1.00	5.25:1.00	2.29:1.00

Source: Alfred Gobar Associates; City of Murrieta 1992-93 Operating Budget.

EXHIBIT II - 1 Cont.

**Summary Of Net Fiscal Implications
Per Acre Of Designated Land Use
City Of Murrieta General Plan**

Fiscal Component	Civic/Governmental			Open Space			Public Park Facilities	Agriculture/ Farming/ Mining	Reserve
	In General	Admini- strative	Schools	In General	Natural	Landscaped Slopes, Etc.			
Revenue:									
1. Property Tax	\$0	\$0	\$0	\$1	\$1	\$75	\$0	\$2	\$1
2. Retail Sales Tax	0	0	0	0	0	0	0	0	0
3. Transient Occupancy Tax	-	-	-	-	-	-	-	-	-
4. Business License Fees	-	-	-	-	-	-	-	-	-
5. Franchise Tax Fees	205	284	108	0	0	4	7	3	0
6. Property Transfer Tax	-	-	-	neg'l	neg'l	neg'l	-	neg'l	neg'l
7. Per Capita Revenue	-	-	-	-	-	-	-	-	-
Total Revenue Per Acre	\$205	\$284	\$108	\$1	\$1	\$79	\$7	\$5	\$1
Cost:									
1. Police Protection	\$281	\$281	\$281	\$0	\$0	\$0	\$281	\$0	\$0
2. Fire Protection	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3. Roadway and Infrastructure	226	226	170	23	23	23	170	23	23
4. Parks and Recreation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
5. Population Based Services	-	-	-	-	-	-	-	-	-
Subtotal	\$507	\$507	\$451	\$23	\$23	\$23	\$451	\$23	\$23
6. Government Administration and Overhead @15.38%/2	39	39	35	2	2	2	35	2	2
Total Cost Per Acre	\$546	\$546	\$486	\$25	\$25	\$25	\$486	\$25	\$25
Net Fiscal Benefit/<Cost> Per Acre	(\$341)	(\$262)	(\$378)	(\$24)	(\$24)	\$54	(\$479)	(\$20)	(\$24)
Revenue/Cost Ratio	0.38:1.00	0.52:1.00	0.22:1.00	0.04:1.00	0.04:1.00	3.19:1.00	0.01:1.00	0.20:1.00	0.04:1.00

Source: Alfred Gobar Associates; City of Murrieta 1992-93 Operating Budget.

EXHIBIT II - 2

**Summary Of Net Fiscal Implication Of General Plan Land Use Alternatives
City Of Murrieta General Plan**

General Plan Land Use Designation	Net Fiscal Effect Per Acre	Alternative 1 (SWAP)		Alternative 2 (Citizens/SWAP)		Alternative 3 (Preferred Plan)		No Project Alternative (Existing)	
		Designated Acreage	Net Fiscal Effect	Designated Acreage	Net Fiscal Effect	Designated Acreage	Net Fiscal Effect	Designated Acreage	Net Fiscal Effect
Residential									
Equestrian	(\$217)	7,634	(\$1,656,578)	2,685	(\$582,645)	4,119	(\$893,823)	3,138	(\$680,946)
Rural	267	1,124	300,108	4,125	1,101,375	2,687	717,429	1,569	418,923
Single Family 1	587	5,267	3,091,729	7,729	4,536,923	7,391	4,338,517	848	497,776
Single Family 2	1,324	638	844,712	779	1,031,396	1,392	1,843,008	848	1,122,752
Multi Family 1	2,317	77	178,409	137	317,429	304	704,368	70	162,190
Multi Family 2	2,995	249	745,755	249	745,755	258	772,710	70	209,650
Commercial									
Regional	15,902	561	8,926,270	670	10,657,997	422	6,710,644	0	0
Community	14,233	782	11,136,753	934	13,297,323	580	8,255,140	203	2,889,299
Neighborhood	11,907	68	810,152	81	967,325	55	654,885	40	476,280
Resort/Recreation	(424)	85	(36,061)	102	(43,057)	59	(25,016)	30	(12,720)
- Hotel Complex	26,130		2,222,357 *		2,653,502 *		1,541,670 *		783,900 *
- Amusement Type	(340)		(28,917) *		(34,527) *		(20,060) *		(10,200) *
Professional	1,070	204	218,408	244	260,780	146	156,220	30	32,100
- Garden Style	575		117,369 *		140,139 *		83,950 *		17,250 *
Mixed Use (50/50)	5,046	201	1,014,246	10	50,460	303	1,528,938	0	0
- Commercial	8,893		1,787,493 *		88,930 *		2,694,579 *		0 *
- Residential	3,774		758,574 *		37,740 *		1,143,522 *		0 *
Industrial									
Light	619	1,693	1,047,967	655	405,445	1,869	1,156,911	51	31,569
General	619	259	160,321	1,800	1,114,200	76	47,044	0	0
Other Uses									
Civic	(341)	252	(85,932)	240	(81,840)	339	(115,599)	384	(130,944)
- Administrative	(262)		(66,024) *		(62,880) *		(88,818) *		(100,608) *
- Schools	(378)		(95,256) *		(90,720) *		(128,142) *		(145,152) *
Open Space	(24)	1,182	(28,368)	1,166	(27,984)	1,962	(47,088)	786	(18,864)
- Natural	(24)		(28,368) *		(27,984) *		(47,088) *		(18,864) *
- Landscaped Slopes	54		63,828 *		62,964 *		105,948 *		42,444 *
Parks	(479)	652	(312,308)	866	(414,814)	852	(408,108)	599	(286,921)
Agric./Farm./Mining	(20)	281	(5,620)	0	0	0	0	2,282	(45,640)
Reserve	(24)	2,915	(69,960)	0	0	0	0	15,050	(361,200)
Streets/Roadways	-	4,519	0	6,172	0	5,830	0	2,646	0
Total:		28,644	\$26,280,003	28,644	\$33,336,068	28,644	\$25,396,180	28,644	\$4,303,304
Fiscal Revenue/Cost Adjustment			(4,934,411)		(6,944,377)		(7,395,974)		(2,173,007)
Net Fiscal Benefit/(Cost) Of Alternative:			\$21,345,592		\$26,391,691		\$18,000,206		\$2,130,297
Effective Revenue/Cost Ratio:			2.69:1.00		2.8:1.00		2.26:1.00		1.41:1.00

Note:

* These figures excluded from summary calculations and are presented for informational purposes only.

Source: Alfred Gobar Associates

SUMMARY.XLS

7/27/83

CHAPTER III

CITY REVENUES AND COSTS

CITY REVENUES

1. Property Tax

Existing and future land use activity including related development and improvements at site locations within the City limits generate annual property tax revenue to the City of Murrieta. The amount of property tax revenue accruing to the City is defined by the taxable value of each form of development and the tax rate area(s) dictating the proportionate share of property tax revenue to be received by the City. The City's share of all property tax generated is limited to its proportionate share of a basic 1.0 percent property tax levy against property improvements as required by Proposition 13 tax reform legislation. Based on a review of the 1992/93 Operating Budget, property tax revenue generated from land and improvements within the City limits is equal to approximately \$800,000. Annual property tax revenue is generated from a Citywide 1993 taxable base value of \$2,119,600,000. The relationship between Citywide taxable value and annual property tax revenues received suggest an effective Citywide share of the basic 1.0 percent property tax levy is equal to 3.774280 percent.

Estimated annual property tax revenue for the full range of General Plan land use designations contemplated by the four General Plan land use alternatives is described in Exhibit III-1 for each acre increment of land use. As shown, development character and intensity of a given land use affects overall average taxable value per acre increment of development. Average annual property tax revenue generated per acre equivalent of land use designation reflects the Citywide effective share of the 1.0 percent basic levy.

2. Retail Sales Tax

Retail sales tax revenue generated within the City of Murrieta is estimated on the basis of residential and commercial land use activity anticipated under each General Plan land use designation. The City receives 1.0 percent of all taxable sales receipts registered at business establishments within the City limits as its share of the total sales tax generated by retail expenditures. To a large degree, retail sales tax revenue attributable to resident expenditures and taxable sales performance achieved by retail and commercial establishments represent two different manifestations of the same source of retail sales tax revenue to be received by the City; i.e., consumers are the source of retail sales tax; stores are a vehicle to capture these taxable expenditures. This fiscal analysis first identifies revenue-generating potential corresponding with each General Plan land use designation on the basis of housing value and income factors defining household expenditure limits and competitive operating parameters describing retail performance of commercial land use. After retail sales tax revenue-generating potential is identified for each land use designation on an individual basis, a subsequent adjustment is made to determine the net Citywide effect of residential and commercial-based retail sales activity combined as suggested by the land use allocation mix of each General Plan alternative. This adjustment is necessary to avoid double counting of retail sales tax revenue and is incorporated as part of the comparative analysis included in Chapter II of this report.

Estimated residential and commercial-based retail sales tax revenue is described in Exhibit III-2 per acre equivalent of land use development. As shown for residential-based retail sales tax revenue, average unit value of housing is used to describe gross household income and total taxable expenditures corresponding per household. The household density per acre corresponding with each residential land use designation dictates total retail sales tax revenue that can be anticipated on an annual basis per acre equivalent of development. Finally, it is assumed that over the long run, 80.0 percent

of total taxable expenditures by resident households will be captured by businesses within the City limits given the composition of retail establishments existing and proposed within the City of Murrieta (Murrieta Town Center, Murrieta Point Plaza, etc.). As shown for commercial-based revenue potential, taxable sales receipts generating revenue to the City are affected by development intensity and retail performance limits reflecting consumer expenditure habits in different retail settings.

3. Transient Occupancy Tax

The City of Murrieta does not currently have any hotels or motels and as such does not have a transient occupancy tax ordinance in place. Over the long run, however, as the City and surrounding areas continue to develop, it is a probable likelihood that a hotel operation will be developed within the City limits prior to buildout of the General Plan. For purposes of this analysis, a long-term assumption is used to described revenue potential from a transient occupancy tax ordinance generating revenues equal to 8.0 percent of the effective room rate charged by such a business operation. Annual occupancy tax revenue generated will be affected by the intensity of development, average year-round occupancy, and effective room rates after discounts, packages, and other promotional programs are considered. Estimated annual transient occupancy tax revenue described on a conservative basis reflects a hotel operation containing an average of 40 rooms per acre achieving a year-round occupancy of 50.0 percent and effective room rate equal to \$45.00 per night or \$26,280 per year in transient occupancy tax revenue per acre equivalent of development.

4. Business License Fees

Business license fee revenue reflects a City-adopted fee schedule of annual charges to all City-based business enterprises. In general, the existing fee schedule involves a minimum \$75 flat rate per establishment plus an incremental fee per \$1,000 in gross receipts above \$500,000 per year for most types of business operations

excluding office and professional businesses which pay a flat \$75 rate per business.

The bulk of business license fee revenue generated over the long run is anticipated from business-related General Plan land use designations. Estimated annual license revenue from business-related land use is described in Exhibit III-3 per acre equivalent of development. As shown, average floor space assumptions for individual business establishments are identified for each form of commercial land use in order to determine an estimated number of businesses that will exist per acre equivalent of development. In addition, estimated gross receipts on average per establishment is also identified to determine the corresponding business license fee that is applicable. Finally, annual business license fee revenue generated per acre equivalent of development is identified for each business-related land use designation.

5. Franchise Tax Fees

The City of Murrieta collects a franchise tax fee from utility and service providers for the right to use City streets and property to conduct business operations. Fees collected represent a percentage share of gross consumption revenue generated by franchise and utility companies from their business operations conducted within the City. Over the long term, the following utilities and services as well as percentage share of gross consumption receipts reflects the basis of annual franchise fee revenue generated and received by the City:

<u>Utility/Service</u>	<u>Share of Gross Receipts</u>
Electricity	Minimum 1.00 Percent
Natural Gas	Minimum 1.00 Percent
Cable Television	5.00 Percent
Trash Collection	7.95 Percent

Estimated annual franchise fee revenue generated from activities associated with each General Plan land use designation is described in Exhibit III-4 per acre equivalent of development. As shown, a consumption reference index is described for each

specific type of land use designation and provides the basis for describing monthly consumption costs of utilities and service per square foot of land or building. Finally, the total annual cost of consumption and the corresponding annual franchise fee generated is described per acre increment of development.

6. Property Transfer Tax

Cities in California receive property transfer collected at the time of sale of privately-owned real estate. The City's share of revenue from this source is \$0.55 per \$1,000 of market value of property transferred. On an historical basis, the Citywide turnover rate describing the value of private property transferred within a given year in relation to the total value of property existing Citywide is equal to 5.58 percent. The Citywide turnover rate identified reflects approximately \$65,000 a year in property transfer tax revenue supporting the 1992/93 Operating Budget; an implied value of real property transferred equal to approximately \$118,200,000 a year; and a 1993 Citywide assessed value just over \$2.1 billion. For purposes of this fiscal analysis it is assumed that the turnover rate for residential forms of land use will be equal to the Citywide rate of 5.58 percent and that the turnover rate for nonresidential forms of land use is equal to one-half the effective Citywide rate. Estimated annual property transfer tax revenue generated per acre equivalent of General Plan land use designation is described in Exhibit III-5. As shown, annual property transfer tax revenue generated is a function of the average taxable value equivalent per acre of development and the corresponding property turnover rate assumed for each land use designation.

7. Per Capita Revenue

Per capita-based revenue represents a potential funding source related to residential forms of land use and the corresponding resident population. Per capita-based revenues include State subventions such as gas tax funds and motor vehicle in-lieu fees and revenue generated by population-based demand or incidence of occurrence

such as animal license fees and miscellaneous fines. As a consequence of a recent agreement with Riverside County Transit (75.0 percent of future gas tax funds directed to capital improvement projects surrounding the I-15/I-215 Interchange), it is assumed that an effective 12.5 percent of future gas tax funds are directed to Citywide roadway maintenance functions with the balance of funding applied to other capital projects, administration, and capital improvement reserves. Based on the above described assumption and the 1992/93 City Operating Budget, total annual per capita revenues are estimated as follows:

<u>Per Capita Revenue Source</u>	<u>Annual Funding</u>
Gas Tax Funds	\$ 63,875
Motor Vehicle License Fees	1,026,500
Animal License Fees	15,000
Miscellaneous Fines	<u>2,500</u>
Total	\$1,107,875

The Citywide resident population base applicable to the identified per capita-based funding is assumed at 25,518 persons on January 1, 1993, based on estimates of population and housing prepared by the State of California Department of Finance. Based on the identified Citywide resident population, per capita-based revenues accruing to the City are equal to \$43.42 per person. Estimate of annual per capita-based revenue corresponding with residential-based land use designations of the General Plan are described in Exhibit III-6 per acre equivalent of development. As shown, annual per capita-based revenue is a function of population per acre dictated by the density of development and corresponding household population. Identified population per household is also based on State of California Department of Finance estimates for population and housing.

CITY COSTS

1. Police Protection

Police protection costs are often assigned to future development on a per capita cost basis reflecting an existing or target ratio of sworn officers per 1,000 population of City residents. The scope of land use designations ultimately included as part of the General Plan includes both residential and nonresidential forms of land use.

Determining police protection costs on the basis of per capita ratios alone would suggest that elements of nonresidential development have no impact on the cost of police protection services within the City of Murrieta. In reality, this is not true. Both residential and nonresidential land use activities within any community demand police protection services. The Consultant uses a method to assign police protection costs based on the mix of developed land use acreage currently being served within the cost requirement of the City Operating Budget. This methodology is based on detailed studies of police service costs in other Southern California communities and reflects the notion that different types of land use demand alternative levels of police protection.

Estimated cost of police protection services within the City of Murrieta is described in Exhibit III-7 for a range of land use typical of most suburban and urban Southern California environments. As shown, each form of land use reflects a distinct contribution to total Citywide demand for services represented by the net annual cost to provide such police protection. Identified annual service costs per acre equivalent of development is assigned to each relevant General Plan land use designation applicable within the City of Murrieta. For example, the per acre cost equivalent corresponding to a rural residential form of land use is applied to the equestrian and rural residential land use designations of the General Plan.

2. Fire Protection

Fire protection for the City of Murrieta and all areas which may be annexed to the City is provided by the Murrieta Fire Protection District (MFPD). The current

MFPD service boundary is consistent with the existing City limit boundary. The MFPD is a separate public service and taxing entity with autonomy from City control or funding consideration. The extent of funding mechanisms available to secure revenues to offset operating costs of the District varies depending on location within the service area boundary. Within the original service area boundary of approximately 18 square miles, operating revenue is generated from two sources (a portion of the basic 1.0 percent property tax levy plus a benefit assessment). Outside the original service area boundary, the MFPD's proportionate share of the basic 1.0 percent tax levy on property represents the only funding source to cover operating cost requirements for serving these locations. The proportionate share of the basic property tax levy received in expanded portions of the MFPD service area is equal to approximately 6.0 percent and probably not sufficient to cover service cost requirements associated with more urban forms of development anticipated with the General Plan designations being considered. To offset this potential funding shortfall, the District Board is formulating a second assessment program for all service area locations beyond the original 18-square-mile boundary. The intent is to create funding parity for all geographic locations that require fire protection services from the MFPD.

Because the MFPD is a separate and autonomous service agency with its own taxing authority, the probable fiscal effect on the City of Murrieta operating cost structure is considered negligible over the near- and long-term future. The MFPD essentially operates as a legally separate service agency with necessary taxing authority to insure sufficient revenue is generated (via property tax or benefit assessment) to cover operating service costs requirements.

3. Roadway and Infrastructure Maintenance

Roadway and infrastructure maintenance responsibilities of the City of Murrieta that are associated with land use designations of the General Plan are described in

Exhibit III-8. As shown, various service agencies and financing mechanisms exist to satisfy maintenance requirements for many roadway improvements and related infrastructure. Maintenance responsibilities of the City of Murrieta are restricted to select forms of improvement as noted.

Approximately 50.1 centerline miles of roadway including three signalized intersections have been accepted by the City of Murrieta as part of its maintenance responsibility within the public right-of-way. It should be noted, within the City limit boundaries there currently is approximately 175 centerline miles of roadway improvement. The City has not yet accepted nearly 125 centerline miles of roadway improvement which remain the maintenance responsibility of the developer or the County of Riverside until certain requirements including additional improvements or funding mechanisms are put into place. The 1992/93 Operating Budget reflects the City's service commitment and cost obligation for maintaining all roadway area and related improvements accepted by the City. Annual Budget expenditures directed to roadway and infrastructure maintenance is equal to \$412,375 including the Consultant-estimated portion of gas tax funds directed to roadway maintenance. The effective annual cost of providing roadway maintenance for 50.1 centerline miles of accepted roadway within the existing City limit boundaries is equal to \$8,231 per centerline mile of roadway service.

Estimated annual roadway and infrastructure maintenance cost associated with specific land use designations of the General Plan is described in Exhibit III-9. As shown, the annual cost of roadway maintenance is a function of the equivalent cost per centerline mile of street and a corresponding percentage share of gross land use acreage required for public circulation improvements. Land area required for roadway improvements varies considerably as a percentage share of gross acreage but is intended to reflect design characteristics for alternative forms of development and localized circulation requirements.

4. Parks and Recreation

Historically, community-level demand for park maintenance and related recreation services has been the responsibility of Riverside County Service Area Number 143 which includes the City of Murrieta as well as surrounding portions of Southwest Riverside County. The scope of maintenance and recreation services directed to residents and property within the Murrieta City limits accounts for approximately 78.0 percent of the total 1992/93 CSA 143 Operating Budget of \$8,445,465. In July 1993, CSA 143 became a separate community service district under administrative authority of the City of Murrieta but retained its funding autonomy, legally separate status and service responsibility. Under the funding structure established for the former CSA 143, operating revenue was derived from partial assessments reflected on the annual property tax bills of residents and businesses. In the future, the newly created community service district will also be funded through assessments and other mechanisms independent of revenue sources supporting the City of Murrieta Operating Budget. In effect, the community service district will continue as a self-supporting service agency subject only to administrative control by the City of Murrieta.

Given the legal administrated and funding structure that distinguishes the City of Murrieta from the community service district, the long-term fiscal implication associated with increased demand for park maintenance and recreation services over the life of the General Plan is considered negligible and limited to the cost of City Council duties reflecting its administrative authority. This administrative cost function is considered part of the City's government administration, and overhead cost burden evaluated as part of this fiscal analysis.

5. Population-Based Services

Population-based service costs reflect the City's obligation to meet resident-based demand for certain forms of services. The full scope of services provided by the City of Murrieta in response to resident-based demand is limited to animal control services. The 1992/93 Operating Budget identifies the cost of animal control services at approximately \$36,000 a year or equal to \$1.41 per resident population. The estimated annual cost of per capita-based services is described in Exhibit III-10 per acre increment of land use designation generating resident population. As shown, annual per capita-based service cost is a function of the resident population created on average per acre equivalent of land use development.

6. Government Administration, and Overhead

Theoretically (by definition), overhead costs are costs that are relatively unaffected by changes in the level of direct services being provided. It can be argued, therefore, that increases in the cost of direct services provided by the City would have no impact on general government and overhead functions such as City Council, City Manager, personnel, finance, City Attorney, etc. In contrast to County theory, nonallocable cost of general government administration do tend to increase as the cost and scope of public services increases.

A summary of cost elements identified in the 1992/93 Operating Budget that are considered a component of government and overhead is described in Exhibit III-11. As shown, the total cost of government administration and overhead is equal to approximately \$1.85 million a year. This overhead burden includes the net cost of selected development service functions such as planning, engineering, and building which may represent an incremental revenue stream to the City in any given year but is considered an overhead cost offset for purposes of this fiscal analysis. In addition, the total Budget scope against which administrative function costs are measured is not limited to the City Operating Budget but also includes a portion of the 1992/93

Operating Budget of CSA 143 for which City Council now has administrative authority and responsibility. The identified City administration and overhead cost structure, therefore, is directed to a net operating cost for all related functions equal to approximately \$13.9 million a year or \$12.0 million a year in direct costs (net cost less government administration and overhead).

On the basis of the Operating Budget scope described as an object of government administrative and overhead functions, overhead is equal to 13.33 percent of net cost and 15.38 percent of direct cost. For purposes of this fiscal analysis, overhead cost related to increases in direct services for development and land use activities of each General Plan land use designation is assumed at a rate equal to one-half of direct overhead cost - 15.3 percent divided by 2. While overhead costs cannot be reasonably expected to remain constant as direct service costs increase, future increases in overhead cannot be realistically expected to rise in direct proportion to cost either. To assign overhead cost at a directly proportional rate to service cost increases or the current overhead burden suggest that the current administrative body has not achieved any operating efficiencies with respect to the public services it administers.

EXHIBIT III - 1

**Annual Property Tax Revenue Per Acre Of Land Use
City of Murrieta General Plan**

General Plan Land Use Designation	Development Intensity	Average Taxable Value		Average Annual Property Tax Per Acre of Use
		Unit Increment	Per Acre of Development	
		(1993 Dollars)		(Rate = 0.03774280) *
Residential	(DU's/Acre)	(Dwelling Unit)		
Equestrian	0.32	\$500,000	\$160,000	\$60
Rural	1.60	300,000	\$480,000	181
Single Family 1	4.00	168,000	\$672,000	254
Single Family 2	8.00	140,000	\$1,120,000	423
Multi Family 1	12.00	98,000	\$1,176,000	444
Multi Family 2	16.00	80,000	\$1,280,000	483
Commercial	(Bldg. Area/Ac.)	(Sq. Ft. of Bldg.)		
Regional	10,890	\$156	\$1,700,000	\$642
Community	10,890	138	1,500,000	566
Neighborhood	10,890	119	1,300,000	491
Resort/Recreation	13,068	92	1,200,000	453
- Hotel Complex	40 Rooms/Ac.	103	1,800,000	679
- Amusement Type	-	-	900,000	340
Professional	21,780	129	2,800,000	1,057
- Garden Style	15,246	115	1,750,000	660
Mixed Use (50/50)	17,424	92	1,600,000	604
- Commercial	13,068	138	1,800,000	679
- Residential	-	70,000 /Unit	1,400,000	528
Industrial				
Light	17,424	52	\$900,000	\$340
General	17,424	52	900,000	340
Other Uses				
Civic	7,841	Exempt Status	Exempt Status	\$0
- Administrative	10,890	Exempt Status	Exempt Status	0
- Schools	5,227	Exempt Status	Exempt Status	0
Open Space	-	-	2,000	1
- Natural	-	-	2,000	1
- Landscaped Slopes	-	-	200,000	75
Parks	-	-	Exempt Status	0
Agric./Farm./Mining	-	-	5,000	2
Reserve	-	-	2,000	1

Note:

- * Property tax revenue based on a citywide 3.774280% effective share of the 1% basic levy, as indicated from the 1992-93 fiscal budget.

Source: Alfred Gobar Associates

EXHIBIT III - 2

**Residential And Commercial Based Annual Retail Sales Tax Revenue
Per Acre Of Land Use Development
City Of Murrieta General Plan**

Residential Land Use	Residential Based Retail Sales Tax Revenue			
	Average Unit Value	Total Taxable Expenditures Per Hshld.	Households Per Acre	Sales Tax Generated To City*
Equestrian	\$500,000	\$28,500	0.32	\$73
Rural	300,000	25,200	1.60	323
Single Family 1	168,000	17,015	4.00	544
Single Family 2	140,000	14,969	8.00	958
Multi Family 1	98,000	11,490	12.00	1,103
Multi Family 2	80,000	9,626	16.00	1,232
Mixed Use Residential	70,000	9,072	20.00	1,452

Note:

* Assumes 80% of total household retail expenditures captured by businesses within City limits.

Commercial Land Use	Commercial Based Retail Sales Tax Revenue			
	Sq. Ft. Building Per Acre	Taxable Sales Per Sq. Ft.	Taxable Sales Per Acre	Sales Tax Generated To City
Regional	10,890	\$144	\$1,568,160	\$15,682
Community	10,890	130	1,415,700	14,157
Neighborhood	10,890	108	1,176,120	11,761
Resort/Recreation	13,068	neg'l	neg'l	neg'l
Professional	21,780	neg'l	neg'l	neg'l
- Garden Style	15,246	neg'l	neg'l	neg'l
Mixed Use (50/50)	17,424	20	350,827	3,508
- Commercial (60% Retail)	13,068	65	846,806	8,468
- Residential	See Residential Land Use		145,152	1,452
Industrial (Light/Gen)	17,424	neg'l	neg'l	neg'l

Source: Alfred Gobar Associates

EXHIBIT III - 3

**Annual Business License Revenue Per Acre of Land Use
City Of Murrieta General Plan**

Business Related Land Use	Size of Business On Average (Sq. Ft.)	Estimated Gross Reciepts Per Business (\$000)	Estimated Businesses Per Acre	Business License Fee Per Acre
Regional	1,500	\$216	7.26	\$545
Community	1,700	220	6.41	480
Neighborhood	1,300	140	8.38	628
Resort/Recreation	n.a.	750	0.29	33
- Hotel Complex	120 Rooms	986	0.33	50
- Amusement Type	n.a.	500	0.25	19
Professional	2,500	n.a.	8.71	653
- Garden Style	1,500	n.a.	10.16	762
Mixed Use (50/50)	1,500	162	4.36	327
- Commercial	1,500	162	8.71	653
Light Industrial	2,500	160	6.97	523
General Industrial	7,500	600	2.32	209

Source: Alfred Gobar Associates

**Annual Franchise Fee Revenue Per Acre Of Development
City Of Murrieta General Plan**

General Plan Land Use Designation	Consumption Reference (Sq. Ft.)	Monthly Consumption Cost Per Sq. Ft.				Per Acre Of Development	
		Electricity (Min 1.0%)*	Natural Gas (Min 1.0%)*	Cable TV (5.0%)*	Trash (7.95%)*	Annual Consumption	Franchise Fee
Residential							
Equestrian	3,200 /Unit	\$0.0295	\$0.0080	\$0.0047	\$0.0025	\$549	\$2
Rural	2,800 /Unit	0.0295	0.0080	0.0054	0.0029	2,462	12
Single Family 1	2,000 /Unit	0.0295	0.0080	0.0075	0.0041	4,714	31
Single Family 2	1,500 /Unit	0.0295	0.0080	0.0100	0.0054	7,618	62
Multi Family 1	1,400 /Unit	0.0295	0.0080	0.0107	0.0058	10,886	93
Multi Family 2	1,200 /Unit	0.0295	0.0080	0.0125	0.0068	13,087	125
Commercial							
Regional	10,890 /Acre	\$0.1350	\$0.0109	\$0.0000	\$0.0192	\$21,575	\$390
Community	10,890 /Acre	0.1350	0.0109	0.0000	0.0192	21,575	390
Neighborhood	10,890 /Acre	0.1350	0.0109	0.0000	0.0192	21,575	390
Resort/Recreation	13,068 /Acre	0.0689	0.0109	0.0038	0.0192	16,121	394
- Hotel Complex	17,242 /Acre	0.0540	0.0126	0.0115	0.0096	18,145	415
- Amusement Type	43,560 /Acre	0.0230	0.0020	0.0000	0.0115	19,079	609
Professional	21,780 /Acre	0.1215	0.0087	0.0000	0.0144	37,793	639
- Garden Style	15,246 /Acre	0.1215	0.0087	0.0000	0.0144	26,455	448
Mixed Use (50/50)	17,424 /Acre	0.0833	0.0095	0.0087	0.0096	23,230	445
- Commercial	13,068 /Acre	0.1215	0.0109	0.0000	0.0144	23,021	387
- Residential	1,000 /Unit	0.0295	0.0080	0.0150	0.0081	14,544	155
Industrial							
Light	17,424 /Acre	\$0.1593	\$0.0195	\$0.0000	\$0.0097	\$39,413	\$535
General	17,424 /Acre	0.1590	0.0195	0.0000	0.0097	39,350	534
Other Uses							
Civic	7,841 /Acre	\$0.0945	\$0.0087	\$0.0000	\$0.0144	\$11,065	\$205
- Administrative	10,890 /Acre	0.0945	0.0087	0.0000	0.0144	15,368	284
- Schools	5,227 /Acre	0.0780	0.0130	0.0009	0.0096	6,366	108
Open Space	43,560 /Acre	0.0000	0.0000	0.0000	0.0000	0	0
- Natural	43,560 /Acre	0.0000	0.0000	0.0000	0.0000	0	0
- Landscaped Slopes	43,560 /Acre	0.0007	0.0000	0.0000	0.0000	366	4
Parks	43,560 /Acre	0.0014	0.0000	0.0000	0.0000	732	7
Agric./Farm./Mining	43,560 /Acre	0.0006	0.0000	0.0000	0.0000	314	3
Reserve	43,560 /Acre	0.0000	0.0000	0.0000	0.0000	0	0

Note:

* Percentage figure reflects City franchise fee as a percentage share of gross consumption revenue.

Source: Alfred Gobar Associates

EXHIBIT III - 5

**Annual Property Transfer Tax Revenue Per Acre Of Land Use
City of Murrieta General Plan**

General Plan Land Use Designation	Development Intensity	Average Taxable Value Unit Increment	Per Acre of Development	Annual Transfer Tax Revenue*
(1993 Dollars)				
Residential	(DU's/Acre)	(Dwelling Unit)		
Equestrian	0.32	\$500,000	\$160,000	\$5
Rural	1.60	300,000	480,000	15
Single Family 1	4.00	168,000	672,000	21
Single Family 2	8.00	140,000	1,120,000	34
Multi Family 1	12.00	98,000	1,176,000	36
Multi Family 2	16.00	80,000	1,280,000	39
Commercial	(Bldg. Area/Ac.)	(Sq. Ft. of Bldg.)		
Regional	10,890	\$156	\$1,700,000	\$26
Community	10,890	138	1,500,000	23
Neighborhood	10,890	119	1,300,000	20
Resort/Recreation	13,068	92	1,200,000	18
- Hotel Complex	40 Rooms/Ac.	103	1,800,000	28
- Amusement Type	-	-	900,000	14
Professional	21,780	129	2,800,000	43
- Garden Style	15,246	115	1,750,000	27
Mixed Use (50/50)	17,424	92	1,600,000	25
- Commercial	13,068	138	1,800,000	28
- Residential	-	70,000 /Unit	1,400,000	43
Industrial				
Light	17,424	52	\$900,000	\$14
General	17,424	52	900,000	14
Other Uses				
Civic	7,841	Exempt Status	Exempt Status	\$0
- Administrative	10,890	Exempt Status	Exempt Status	0
- Schools	5,227	Exempt Status	Exempt Status	0
Open Space	-	-	\$2,000	Neg'l
- Natural	-	-	2,000	Neg'l
- Landscaped Slopes	-	-	200,000	Neg'l
Parks	-	-	Exempt Status	0
Agric./Farm./Mining	-	-	5,000	Neg'l
Reserve	-	-	2,000	Neg'l

Note:

- Property Transfer Tax revenue reflects a real property turnover rate of 5.58% of assessed value for residential land forms and one-half that rate for non-residential land forms.

Source: Alfred Gobar Associates

EXHIBIT III - 6

**Annual Per Capita Based Revenue Per Acre Of Development
City Of Murrieta**

Land Use Designation	Development Intensity (DU's/Acre)	Resident Population Per Acre (2.86 Per/Hshld)	Annual Per Capita Based Revenue*
Residential			
Equestrian	0.32	0.92	\$40
Rural	1.60	4.58	199
Single Family 1	4.00	11.44	497
Single Family 2	8.00	22.88	993
Multi Family 1	12.00	34.32	1,490
Multi Family 2	16.00	45.76	1,987
Mixed Use (50/50)			
- Residential	20.00	57.20	2,484

Note:

- Per capita revenue reflects estimated poulation based subventions and revenue sources supporting the City operating budget (\$1,107,875 including 12.5% of Gas Tax Funds) and an estimated 1/1/93 population base of 25,518 persons.

Source: Alfred Gobar Associates; State Dept. Of Finance Population and Housing Estimates

EXHIBIT III - 7

**Estimated Cost Of Police Protection
Per Developed Acre Of Land Use
City Of Murrieta**

Form Of Land Use	Citywide Developed Acreage*	Annual Service Cost Per Developed Acre (Gross)	Total Cost of Services by Land Use**
Residential			
Rural (< 2 DU/AC)	3,219	198	\$636,609
SFD (2-4 DU/AC)	1,658	396	655,813
SFD (4-8 DU/AC)	552	692	382,096
SFA (8-15 DU/AC)	49	514	25,196
MFA (15-22 DU/AC)	80	574	45,883
MFA (22-30 DU/AC)	0	692	0
Commercial (Ret./Off.)	465	1,058	491,691
Indust./Bus. Park	71	275	19,408
Public/Quasi-Public	302	281	84,813
Parks***	0	281	0
Freeways/Major Roads	1,521	0	0
Vacant Land/Open Space	<u>8,988</u>	0	<u>0</u>
Totals	16,905		\$2,341,510

Notes:

- * Developed land use distribution based on current survey of existing land use conducted by The Lightfoot Planning Group and Consultant estimate of residential density distribution.
- ** Police cost are net and reflect 1992-93 total department budget (\$2,727,310) less capital outlays and service cost reimbursements from Community Service Area Number 143 and the Murrieta Fire Protection District.
- *** Park area not considered within the City cost structure identified since patrol service cost reimbursed to City from separate funding mechanism.

Source: Alfred Gobar Associates; The Lightfoot Planning Group, 1992-93 City Operating Budget

EXHIBIT III-8

SUMMARY OF ROADWAY AND INFRASTRUCTURE
MAINTENANCE RESPONSIBILITIES FOR CITY OF MURRIETA

Maintenance Items	City of Murrieta	CSD or CSA	Private Agency	Not Identified
Roadway Surface	X			
Curbs and Gutters	X			
Traffic Signs/Striping	X			
Traffic Signals	X			
Storm Mains/Channels	X			
Street Lights	Negl.	X		
Street Sweeping				X
Median Landscaping		X		
Parkway Landscaping		X		
Sidewalks and Driveways				X
Improved Parks		X		
Slope Landscaping		X		
Natural Open Space		X		
Sewer			X	
Water			X	
Electricity			X	

Source: Alfred Gobar Associates.

tables/tmur1667/092392/wd

EXHIBIT III - 9

**Annual Roadway And Infrastructure Maintenance Cost
Per Acre Of land Use Development
City Of Murrieta**

General Plan Land Use Designation	Roadway As % Share of Gross Acreage	Center Line Miles Of Street Per Acre	Annual Cost Of Roadway Maintenance
Residential			
Equestrian	15.0	0.0206	\$170
Rural	20.0	0.0275	226
Single Family 1	26.0	0.0358	294
Single Family 2	30.0	0.0413	340
Multi Family 1	20.0	0.0275	226
Multi Family 2	15.0	0.0206	170
Commercial			
Regional	20.0	0.0275	\$226
Community	20.0	0.0275	226
Neighborhood	20.0	0.0275	226
Resort/Recreation	15.0	0.0206	170
- Hotel Complex	15.0	0.0206	170
- Amusement Type	15.0	0.0206	170
Professional	15.0	0.0206	170
- Garden Style	15.0	0.0206	170
Mixed Use (50/50)	15.0	0.0206	170
- Commercial	15.0	0.0206	170
- Residential	15.0	0.0206	170
Industrial			
Light	15.0	0.0206	\$170
General	15.0	0.0206	170
Other Uses			
Civic	20.0	0.0275	\$226
- Administrative	20.0	0.0275	226
- Schools	15.0	0.0206	170
Open Space	2.0	0.0028	23
- Natural	2.0	0.0028	23
- Landscaped Slopes	2.0	0.0028	23
Parks	15.0	0.0206	170
Agric./Farm./Mining	2.0	0.0028	23
Reserve	2.0	0.0028	23

Source: Alfred Gobar Associates

EXHIBIT III - 10

**Annual Per Capita Based Service Cost
Per Acre Of Land Use Development
City Of Murrieta**

Land Use Designation	Development Intensity (DU's/Acre)	Resident Population Per Acre (2.86 Per/Hshld)	Annual Per Capita Based Service Cost*
Residential			
Equestrian	0.32	0.92	\$1
Rural	1.60	4.58	6
Single Family 1	4.00	11.44	16
Single Family 2	8.00	22.88	32
Multi Family 1	12.00	34.32	48
Multi Family 2	16.00	45.76	65
Mixed Use (50/50)			
- Residential	20.00	57.20	81

Note:

- * Per capita based service cost reflects the 1992-93 cost of providing animal control services (\$36,000) to a 1/1/93 resident population base of 25,518 persons.

Source: Alfred Gobar Associates; State Dept. Of Finance Population and Housing Estimates

EXHIBIT III - 11

Summary of Government Administration and Overhead Cost City of Murrieta

Administrative Function	1992-93 Operating Cost
City Council	\$68,110
City Attorney	260,000
City Manager	386,650
Personnel	16,200
City Clerk	144,203
Finance	76,999
Business Licenses	5,115
Economic Development	66,550
Building Maintenance	88,400
Community Promotion	21,200
Non-Departmental	708,317
Misc./Special Operations	127,950
Subtotal	\$1,969,694
Overhead Cost Burden Of Selected Functions*	
Community Development Services - Net	(\$140,229)
Public Works/Engineering - Net	(145,414)
Community Services - Net	168,591
Total Government Administration and Overhead	\$1,852,642
Operating Budget Scope:	
1992-93 Operating Budget For City	\$7,727,657
Less: Capital Outlays	(178,000)
Net Operating Budget For City	\$7,549,657
1992-93 Operating Budget For CSA 143	\$6,600,127
Less: Capital Outlays	(249,166)
Net Operating Budget For CSA 143	\$6,350,961
City Administration and Overhead Cost Structure:**	
Applicable Operating Cost - Net	\$13,900,618
Applicable Operating Cost - Direct	12,047,976
Admin. And Overhead As Percentage Of Net Cost:	13.33%
Admin. And Overhead As Percentage Of Direct Cost:	15.38%

Note:

- * Selected Planning, Building, and Engineering functions generate a small positive income stream under Consultant defined scope of on-going service operations. Due to year-to-year variability inherent to these administrative functions, the identified income stream is treated as an offset of the City overhead cost burden for purposes of this analysis.
- ** Estimate of 1992-93 fiscal operating cost for CSA 143 included to reflect full scope of operations and budget expenses under administrative authority of the City of Murrieta.

Source: Alfred Gobar Associates: City of Murrieta 1992-93 Operating Budget

CITY OF MURRIETA GENERAL PLAN PROGRAM CIRCULATION ELEMENT TRAFFIC STUDY



Robert Kahn, John Kain
& Associates, Inc.

**Robert Kahn, John Kain
& Associates, Inc.**

Transportation Planning • Traffic/Acoustical Engineering

January 29, 1993

Mr. Lou Lightfoot
THE LIGHTFOOT PLANNING GROUP
28636 Front Street, Suite 204
Temecula, CA 92590

Subject: City of Murrieta General Plan Program Circulation Element
Traffic Study

Dear Mr. Lightfoot:

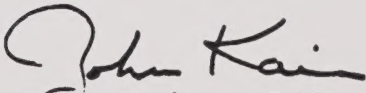
ROBERT KAHN, JOHN KAIN & ASSOCIATES, INC. is pleased to present this Circulation Element Traffic Study for the City of Murrieta General Plan Program. This report summarizes our findings regarding future roadway conditions based upon the Preferred Circulation Plan of November, 1992. Buildout traffic assignments have been performed using the Preferred Land Use Alternative and two alternative land use plans.

The last section of the report presents our conclusions on circulation system requirements and corridor features. Recommendations for a Draft Circulation Plan including the location of intersections which may require capacity enhancement are also presented.

If you have any questions or if we can be of further assistance, please do not hesitate to call at (714) 474-0809.

Sincerely,

ROBERT KAHN, JOHN KAIN & ASSOCIATES, INC.


John Kain, AICP
Principal

JK:LR:kgd/3053

JN:368-92-001

CITY OF MURRIETA
GENERAL PLAN PROGRAM
CIRCULATION ELEMENT TRAFFIC STUDY

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CITY OF MURRIETA
GENERAL PLAN PROGRAM
CIRCULATION ELEMENT TRAFFIC STUDY

INTRODUCTION

This report presents the technical analysis of the circulation system requirements for the City of Murrieta General Plan Program.

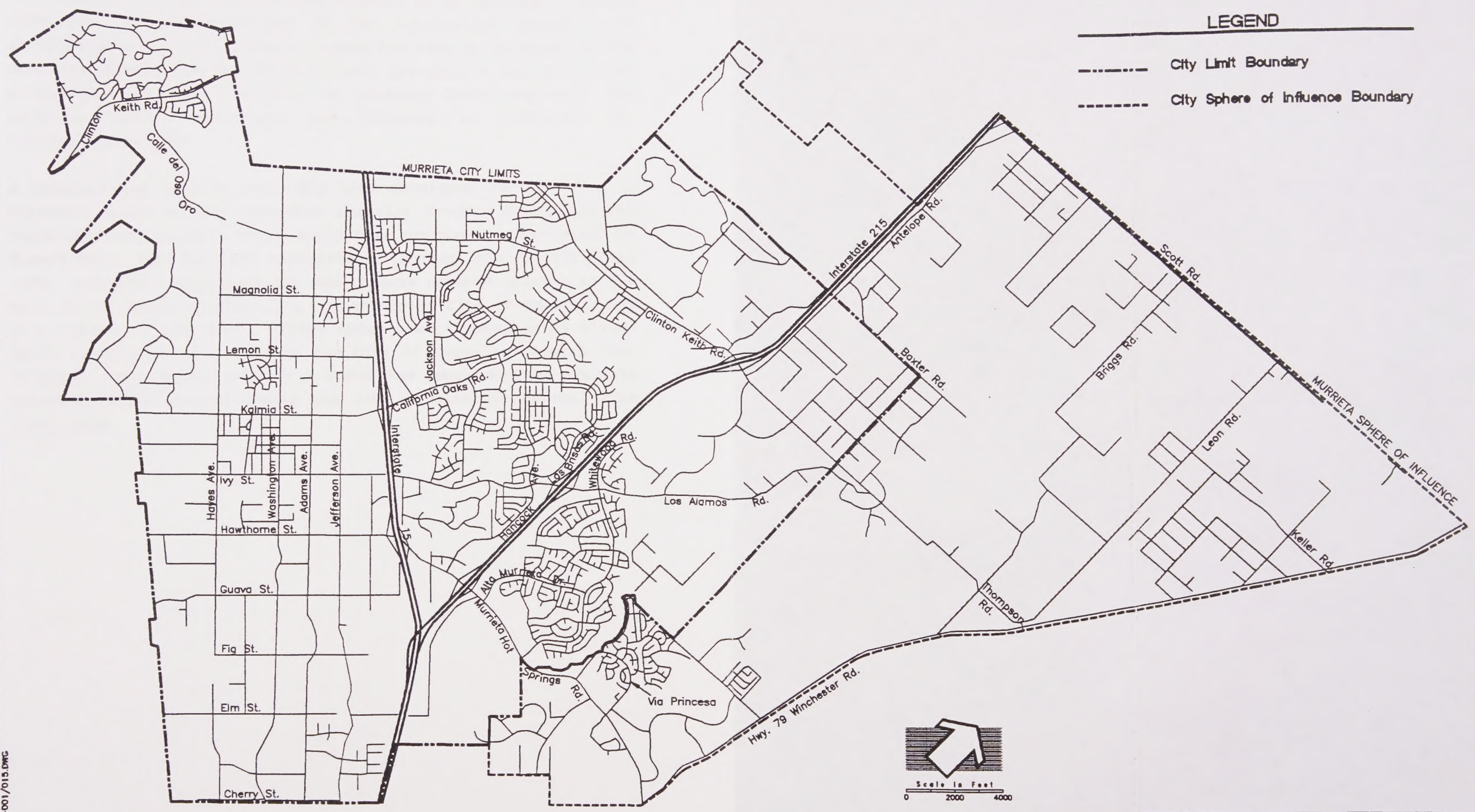
The General Plan review process has produced preferred land use and circulation plans. These plans have been analyzed in this report using a computerized traffic model developed for the City of Murrieta. In addition to the preferred land use plan, the preferred circulation plan has also been analyzed using two additional land use alternatives: the existing Southwest Area Plan (SWAP), and the SWAP scenario with approved specific plans.

A Draft Circulation Plan for the City of Murrieta General Plan is presented in the conclusions section of the report. Also included are recommendations for transportation corridor features and roadway cross-sections for augmented capacities.

Background

The community of Murrieta, having recently approved cityhood, is now required by the planning code of the State of California to implement a General Plan for the city. The General Plan study area is illustrated in Exhibit A. The purpose of the General Plan is to provide a comprehensive set of planning elements to guide the city in all aspects of future development. A key part of the General Plan is the Circulation Element.

CITY OF MURRIETA • GENERAL PLAN



LEGEND

- City Limit Boundary
- City Sphere of Influence Boundary



GENERAL PLAN STUDY AREA

EXHIBIT A

The function of the Circulation Element is to provide a master blueprint for implementation of the circulation system. It anticipates the travel demands within the city at buildout of the Land Use Element of the General Plan, provides a map of desired alignments and classifications of arterial level roadways, and includes goals, objectives and policies to implement the circulation system.

A computerized traffic model has been developed for the City of Murrieta based on the Southwest District Traffic Model and the North Murrieta Traffic Model which were developed previously by Robert Kahn, John Kain and Associates. The Murrieta Traffic Model (MTM) includes recent land use and roadway network updates to the area of the model encompassing the adjoining City of Temecula and it's sphere of influence. These updates were provided by Wilber Smith Associates as a part of the City of Temecula General Plan Program. The Murrieta Traffic Model has been used to evaluate buildout travel demand within the City of Murrieta General Plan study area.

CIRCULATION ELEMENT DEVELOPMENT PROCESS

This section of the report discusses the development process for the Circulation Element. Existing traffic and circulation system conditions are documented, and previous circulation plans and studies which have been completed are discussed. Draft goals, objectives and policies are presented for consideration and inclusion in the Draft Circulation Element. The section is concluded with a discussion of the process for determining the Preferred Circulation Plan of November 1992.

The traffic conditions as they existed in 1990-1992 are discussed below and illustrated in this section of the report.

Existing Regional Facilities

Regional access to the study area is provided primarily by Interstates 15 and 215 which traverse generally through the western and central portion of the study area, respectively. Another important regional roadway facility is State Route 79 (Winchester Road) along the eastern border of the study area.

The corridors which traverse the study area and provide regional access:

- Interstate 15 (I-15) traverses in a generally north/south direction, diagonally through the western portion of the study area. To the north, I-15 continues through Riverside and San Bernardino Counties and is the link to the I-10 Freeway and State Routes 91 and 60, and the greater Los Angeles area. In the study area, daily traffic volumes range from approximately 54,000 vehicles per day to 86,000 vehicles per day.

- Interstate 215 (I-215) traverses in a north/south direction through the central portion of the study area. To the north, I-215 continues through Riverside County and connects at it's northerly terminus with State Route 60 in the Moreno Valley area. In the study area, daily traffic volumes range from approximately 36,000 vehicles per day to 39,000 vehicles per day.
- Highway 79 (Winchester Road) runs in a northeasterly direction from the interchange at the I-15 Freeway through the eastern portion of the study area toward the City of Hemet. Highway 79 generally provides a parallel north/south route to the I-215 Freeway east of the freeway. Existing daily traffic volumes range from approximately 9,900 vehicles per day to 11,400 vehicles per day.

Key Existing Streets

Clinton Keith Road: Clinton Keith Road is an east/west roadway which runs through the middle of the study area. The roadway provides access to both the I-15 and I-215 Freeways at interchanges but is discontinuous east of the I-215 Freeway. The roadway is currently 2 to 4 lanes undivided and carries traffic volumes ranging from approximately 2,300 vehicles per day west of Calle Del Oso Oro to 5,600 vehicles per day west of the I-215 Freeway.

Scott Road: Scott Road is an east/west road along the northern border of the study area which runs westerly from Winchester Road and provides access to the I-215 Freeway. West of the I-215 Freeway, Scott Road transitions to Bundy Canyon Road which provides access to the I-15 Freeway with an interchange. The existing roadway cross-section is 2 lanes undivided and exists as a dirt roadway in the vicinity of Winchester Road. Existing traffic

volumes range from approximately 1,000 vehicles per day west of Winchester Road to 4,300 vehicles per day east of the I-215 Freeway.

Washington Avenue: This north/south roadway runs parallel to the I-15 Freeway through the City of Murrieta and becomes Palomar Street to the north. The existing roadway is 2 lanes undivided in the study area. Existing traffic volumes range from approximately 400 vehicles per day at the south end to 5,600 vehicles per day south of Kalmia Street.

California Oaks Road: This north/south roadway runs southerly from Clinton Keith Road to the I-15 Freeway where it provides freeway access at an interchange. The existing roadway cross-section is 4 lanes divided north of the I-15 Freeway and 2 lanes undivided south of the I-15 Freeway where it becomes known as Kalmia Street. Existing traffic volumes range from approximately 3,800 vehicles per day south of Clinton Keith Road to 17,400 vehicles per day north of the I-15 Freeway.

Los Alamos Road: Los Alamos Road runs diagonally northeast across the study area providing freeway access to the I-215 Freeway at an interchange. South of the I-15 Freeway, this 2 lane undivided roadway becomes known as Ivy Street, and at it's north end transitions to Thompson Road. Existing traffic volumes range from approximately 1,200 vehicles per day north of Whitewood Road to 17,900 vehicles per day south of the I-215 Freeway. South of the I-15 Freeway, volumes decline to approximately 5,200 vehicles per day.

Murrieta Hot Springs Road: This east/west roadway crosses both Interstate freeways just north of the freeway confluence, and provides access to both freeways with interchanges. West of the I-15 Freeway the roadway becomes known as Hawthorne Street. The roadway currently exists as 2 lanes undivided along most of it's length. Existing traffic volumes range from approximately 6,400 vehicles per day west of the I-15 Freeway to 10,900 vehicles per day between the I-15 and I-215 Freeways.

Jefferson Avenue: This north/south roadway runs parallel to the I-15 Freeway. The existing roadway is 2 lanes undivided and existing traffic volumes range from approximately 1,000 vehicles per day at the north end to 12,000 vehicles per day at the south end.

Nutmeg Street: This east/west roadway runs westerly from Clinton Keith Road to the I-15 Freeway. The existing roadway cross-section is 2 lanes undivided. Existing traffic volumes range from approximately 1,200 vehicles per day west of Clinton Keith Road to 3,000 vehicles per day east of Jackson Avenue.

Jackson Avenue: This north/south roadway runs parallel to the I-15 Freeway. The existing roadway is 4 lanes divided north of California Oaks Road to 2 lanes undivided in the vicinity of Nutmeg Street. Existing traffic volumes range from approximately 2,600 vehicles per day north of Nutmeg Street to 4,500 vehicles per day north of California Oaks Road.

Antelope Road: This north/south frontage roadway runs parallel to the I-215 Freeway. It is 2 lanes undivided north of Clinton Keith Road. Existing traffic volumes range from approximately 700 vehicles per day north of Clinton Keith Road.

Travel Lanes and Intersection Controls

Exhibit B identifies the existing number of through travel lanes for roadways within the study area. The intersection controls which existed in 1991 are shown on Exhibit C. Additional traffic signals are being implemented in the study area.

Daily Traffic Volumes and Conditions

Exhibit D shows traffic counts taken for ROBERT KAHN, JOHN KAIN & ASSOCIATES, INC. at selected locations throughout the study area (see City of Murrieta Traffic Model, Baseline Conditions Report, September 28, 1992, Appendix "A"). Additional supplemental counts were provided by Caltrans, City of Murrieta and Riverside County.

Daily volume to capacity ratios for existing roadways have been determined for locations where daily traffic volumes are available. Exhibit E shows the daily volume to capacity ratios for the study area. Table 1 depicts the capacity values used for various roadway sizes.

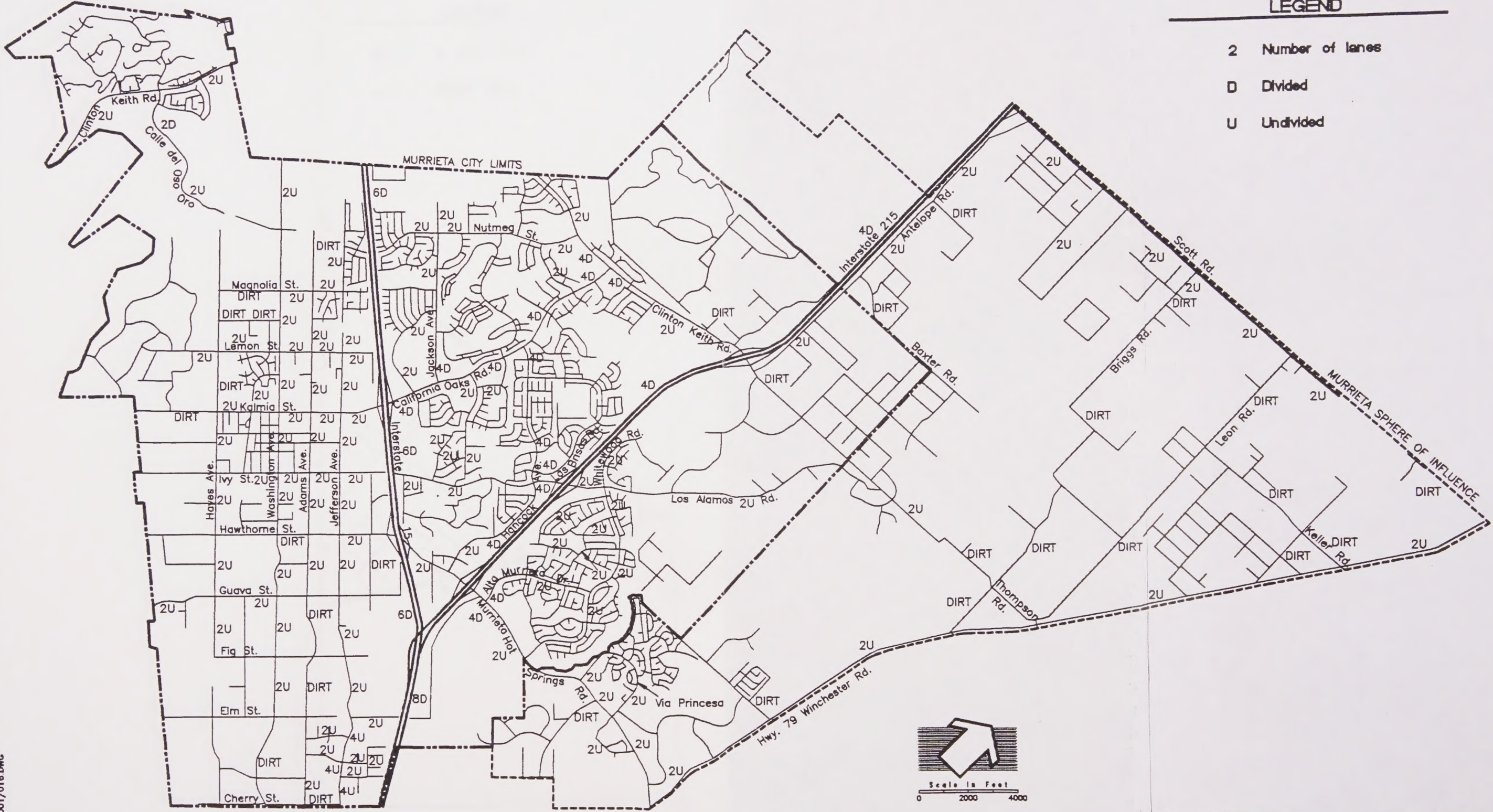
Intersection Service Levels

The Riverside County Transportation Commission (RCTC) requires that the 1985 Highway Capacity Manual (Operational Analysis Method - Section 9) be used to analyze the level of service to be achieved at intersections. The saturation flow rate for intersections (also known as lane capacity) is 1700 vehicles per hour of green time per lane for turning movements, and 1800 vehicles per hour of green time per lane for through movements for intersections with left turn phasing and no shared lane geometrics. Lost time (also known as "clearance interval") is assumed to be two seconds. Adjustment

CITY OF MURRIETA • GENERAL PLAN

LEGEND

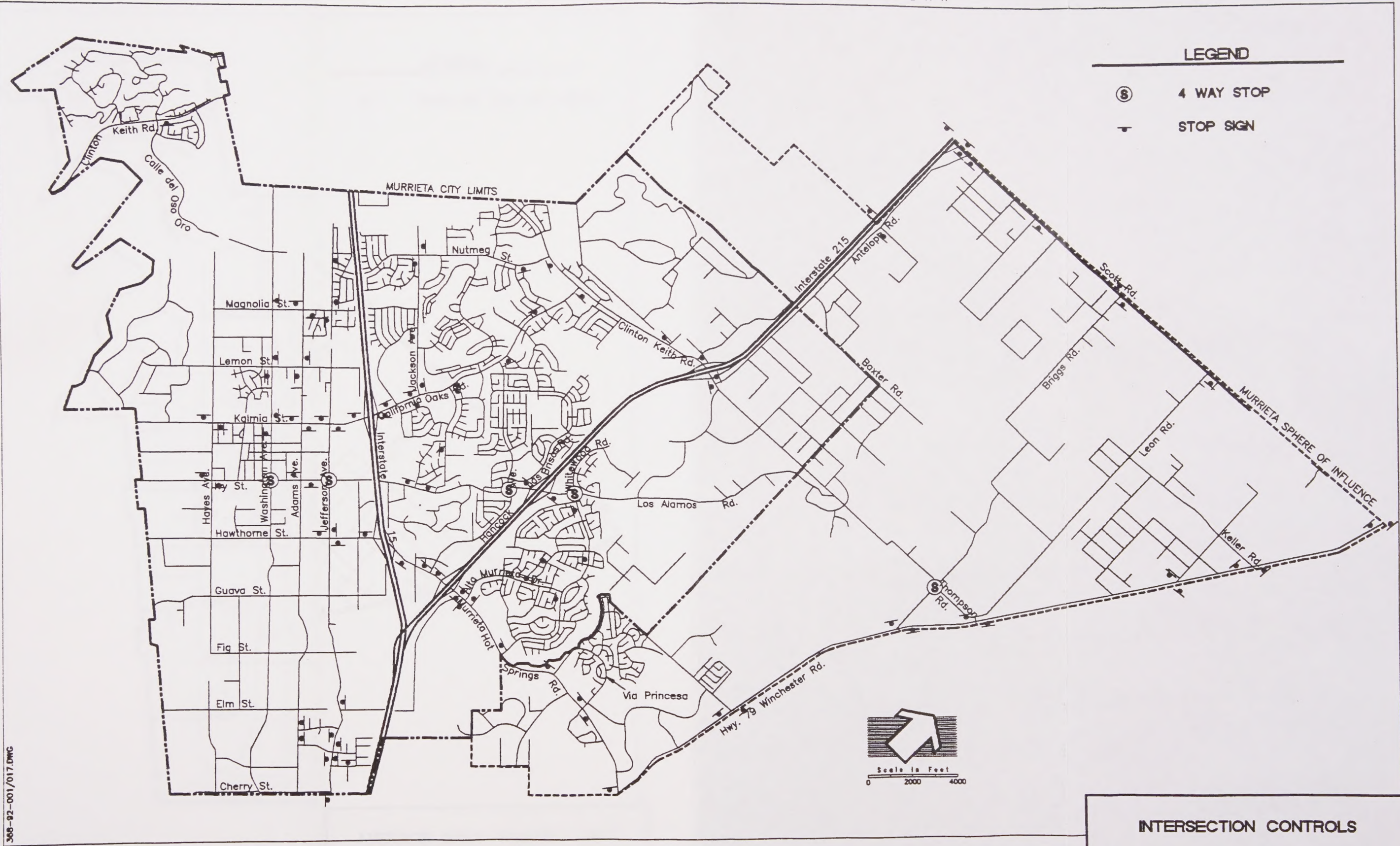
- 2 Number of lanes
- D Divided
- U Undivided



NUMBER OF THROUGH LANES

EXHIBIT B

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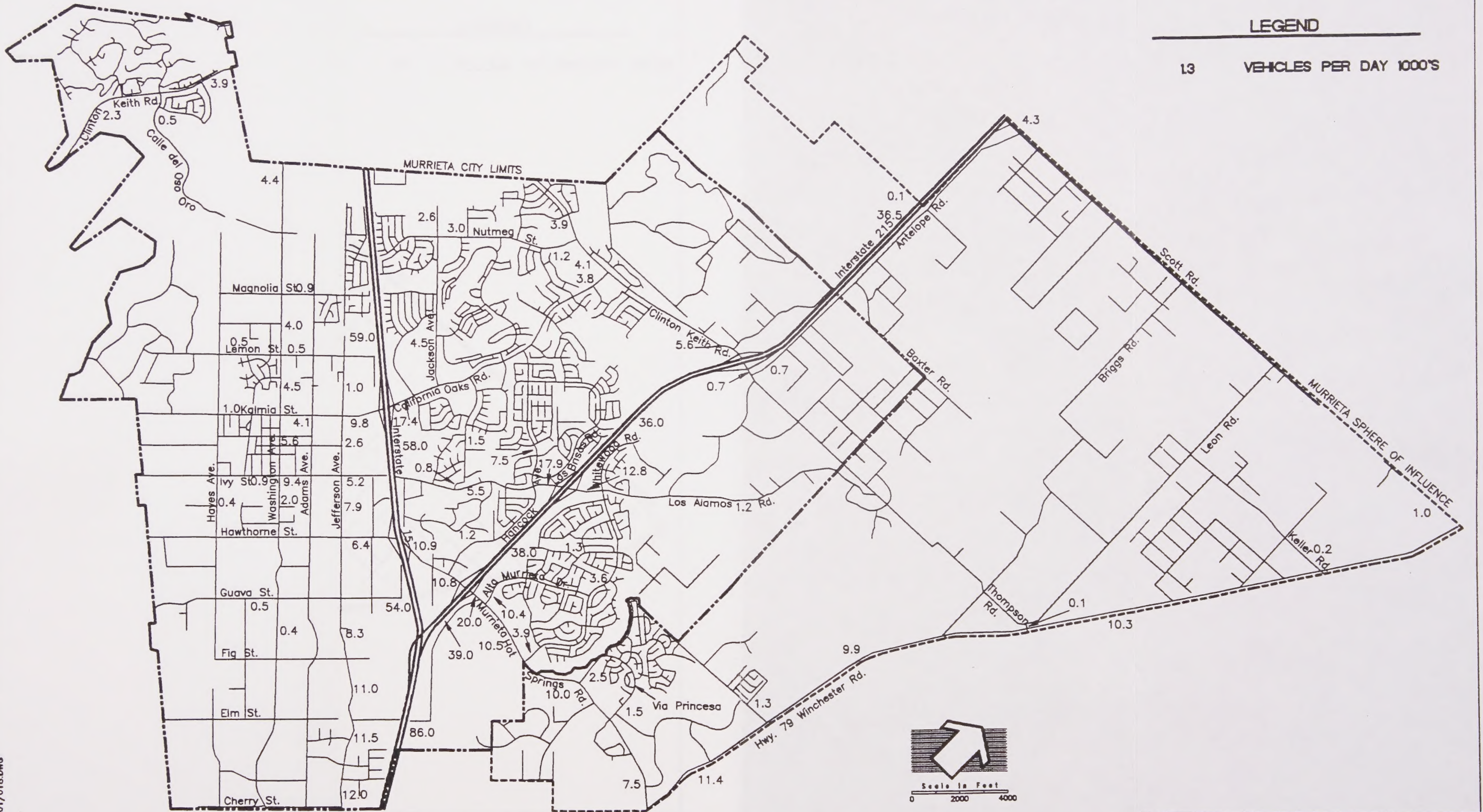


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INTERSECTION CONTROLS

EXHIBIT C

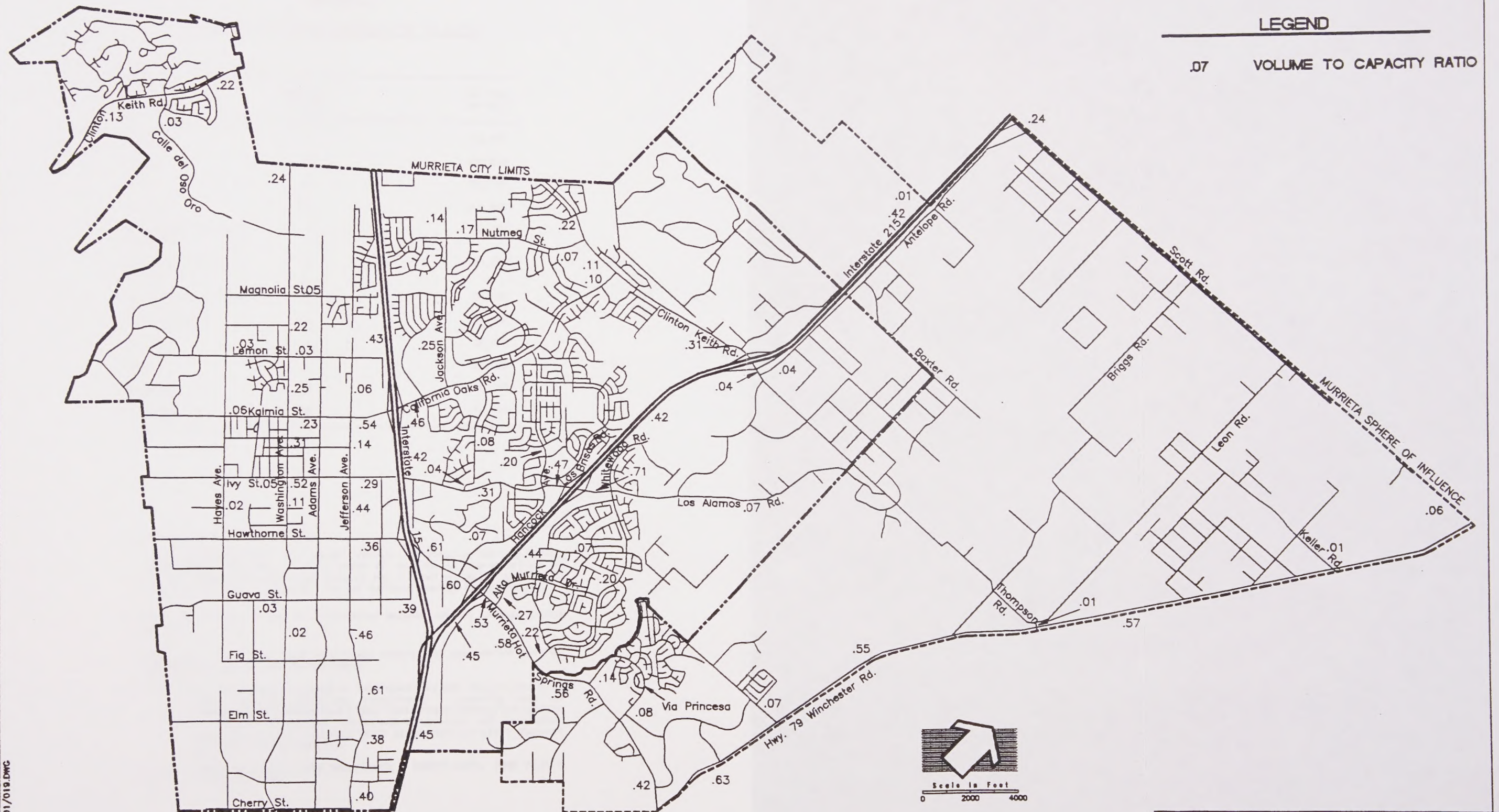
CITY OF MURRIETA • GENERAL PLAN



AVERAGE DAILY TRAFFIC [ADT]

EXHIBIT D

CITY OF MURRIETA • GENERAL PLAN



DAILY VOLUME TO CAPACITY RATIOS

EXHIBIT E

TABLE 1
DAILY ROADWAY CAPACITY VALUES

FACILITY	NUMBER OF LANES	MAXIMUM CAPACITY ¹
Freeway	4	86,000
Freeway	6	138,000
Freeway	8	190,000
Freeway	10	240,000
Expressway/Multi-Model Corridor	4	80,000 ²
Expressway/Multi-Model Corridor	6	120,000 ²
Augmented Urban Arterial	8	72,000
Urban Arterial	6	59,000
Arterial	4	38,000
Major	4	38,000
Secondary	4	30,000
Collector ³	2	18,000

¹ "Level of Service E". This value reflects the absolute maximum volume under ideal conditions. This level of service is characterized by unstable flow, extremely high volumes and limited operating speed with intermittent vehicle queuing. Values indicate Average Daily Traffic.

² Effective capacities may be distributed between several transportation modes.

³ Capacities are for two-lane arterials; majors and secondaries will be similar when constructed as two lanes.

NOTE: All capacities are based on improvement to full County standards under optimum operating conditions. Capacity can be significantly reduced by a higher incidence of pedestrian traffic or turning movements. Substandard vertical and horizontal alignment, or any condition which might restrict sight distance will also reduce capacity.

Source: Riverside County Road Department; ROBERT KAHN, JOHN KAIN & ASSOCIATES, INC.

factors for such things as lane width, trucks, grade, obstructions, parking or pedestrians, are as stated in the 1985 HCM.

The 1985 Highway Capacity Manual (HCM) methodology expresses the level of service at an intersection in terms of time delay and reserve capacity for the various intersection approaches. The HCM uses different procedures depending on whether the intersection is signalized or unsignalized. The levels of service determined in this study are determined using the HCM methodology.

All study intersections which are two-way stop sign controlled with stop control on the minor street only have been analyzed using the unsignalized intersection methodology of the HCM. For these intersections, the calculation of level of service is dependent on the occurrence of gaps occurring in the traffic flow of the main street. Using various information on the intersection configuration, the level of service can be calculated directly using the unsignalized methodology as shown in Table 2.

Because some of the study area intersections are multi-way stop controlled, the ability of vehicles to enter the intersection is not controlled by the occurrence of gaps in the flow of the main street. All way stop controlled (AWSC) intersections have been evaluated using the Transportation Research Circular Number 373, July, 1991. The analysis for these intersections are also shown in Table 2.

Intersection level of service calculations are based upon manual AM and PM peak hour turning movement counts made for ROBERT KAHN, JOHN KAIN & ASSOCIATES, INC.. HCM and AWSC calculation worksheets are provided in the City of Murrieta Traffic Model, Baseline Conditions Report, Appendix "B". AM and PM intersection Levels of Service are shown on Exhibit F.

TABLE 2

INTERSECTION ANALYSIS FOR EXISTING CONDITIONS

INTERSECTION	TRAFFIC CONTROL	INTERSECTION APPROACH LANES ¹				RESERVE CAPACITY ²		LEVEL OF SERVICE	
		NORTH-BOUND	SOUTH-BOUND	EAST-BOUND	WEST-BOUND	AM	PM	AM	PM
		L T R	L T R	L T R	L T R				
Calle Del Oso Oro (NS) at: Clinton Keith Rd. (EW) ³	Cross Street Stop	0 1 0	0 1 0	0 1 0	0 1 0				
• NB Left						789	756	A	A
• Through									
• Right									
• SB Left						552	452	A	A
• Through									
• Right									
• EB Left						973	934	A	A
• WB Left						970	975	A	A
Washington Ave. (NS) at: Magnolia St. (EW) ³	Cross Street Stop	0 1 0	0 1 0	0 1 0	0 1 0				
• EB Left						709	646	A	A
• Through									
• Right									
• WB Left						822	551	A	A
• Through									
• Right									
• SB Left						994	876	A	A
• NB Left						991	983	A	A
Washington Ave. (NS) at: Fullerton Rd. (EW) ³	Cross Street Stop	0 1 0	0 1 0	0 1 0	0 0 0				
• EB Left						806	766	A	A
• Right									
• NB Left						994	997	A	A
Washington Ave. (NS) at: Lemon St. (EW) ³	Cross Street Stop	0 1 0	0 1 0	0 1 0	0 1 0				
• EB Left						820	767	A	A
• Through									
• Right									
• WB Left						733	659	A	A
• Through									
• Right									
• SB Left						994	937	A	A
• NB Left						989	968	A	A

¹ When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

² Source: FHWA, Highway Capacity Software (Release 1.51).

³ Unsignalized intersection reserve capacity methodology.

TABLE 2 (CONT'D)

INTERSECTION ANALYSIS FOR EXISTING CONDITIONS

INTERSECTION	TRAFFIC CONTROL	INTERSECTION APPROACH LANES ¹				RESERVE CAPACITY ² / DELAY ³ (SECS.)		LEVEL OF SERVICE	
		NORTH- BOUND	SOUTH- BOUND	EAST- BOUND	WEST- BOUND	AM	PM	AM	PM
		L T R	L T R	L T R	L T R				
Washington Ave. (NS) at: Weeping Willow Ln. (EW) ⁴	Cross Street Stop	0 1 0	0 1 0	0 1 0	0 0 0	835	841	A	A
• EB Left						971	968	A	A
• Right									
• NB Left									
Washington Ave. (NS) at: Kalmia St. (EW) ⁴	Cross Street Stop	0 1 0	0 1 0	0 1 0	0 1 0	575	511	A	A
• EB Left						625	356	A	B
• Through						961	816	A	A
• Right						977	966	A	A
• WB Left									
• Through									
• Right									
• SB Left									
• NB Left									
Washington Ave. (NS) at: Ivy St. (EW) ⁵	All Way Stop	0 1 0	0 1 1	0 1 0	0 1 0	2.2	3.5	A	A
Washington Ave. (NS) at: De Luz Rd. (EW) ⁴	Cross Street Stop	0 1 0	0 1 0	0 1 0	0 0 0	790	788	A	A
• EB Left						998	998	A	A
• Right									
• NB Left									
Jefferson Ave. (NS) at: Kalmia St. (EW) ⁴	Cross Street Stop	0 1 0	0 1 0	0 1 0	0 1 0	642	447	A	A
• NB Left						448	296	A	C
• Through						956	906	A	A
• Right						888	878	A	A
• SB Left									
• Through									
• Right									
• EB Left									
• WB Left									

¹ When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

² Source: FHWA, Highway Capacity Software (Release 1.51).

³ Source: Transportation Research Board, Circular Number 373, (July, 1991).

⁴ Unsignalized intersection reserve capacity methodology.

⁵ Delay methodology.

TABLE 2 (CONT'D)

INTERSECTION ANALYSIS FOR EXISTING CONDITIONS

INTERSECTION	TRAFFIC CONTROL	INTERSECTION APPROACH LANES ¹								RESERVE CAPACITY ² / DELAY ³ (SECS.)		LEVEL OF SERVICE	
		NORTH-BOUND		SOUTH-BOUND		EAST-BOUND		WEST-BOUND		AM	PM	AM	PM
		L	T R	L	T R	L	T R	L	T R				
Jefferson Ave. (NS) at: Los Alamos Rd. (EW) ⁵	All Way Stop	0	1 0	0	1 0	0	1 0	0	1 0	6.8	24.1	B	D
Jefferson Ave. (NS) at: Murrjeta Hot Springs Rd. (EW) ⁴	All Way Stop	0	1 0	1	1 0	0	0 0	0	1 0	3.1	12.4	A	C
Jefferson Ave. (NS) at: Elm St. (EW) ⁵	Cross Street Stop	0	1 0	0	1 0	0	0 0	0	1 0				
• WB Left										301	186	B	D
• Right										865	513	A	A
• SB Left													
Jefferson Ave. (NS) at: Gau Dr. (EW) ⁵	Cross Street Stop	0	1 0	0	1 0	0	1 0	0	0 0				
• EB Left										315	250	B	C
• Right										619	831	A	A
• NB Left													
Jefferson Ave. (NS) at: Pear St. (EW) ⁵	Cross Street Stop	0	1 0	0	1 0	0	1 0	0	1 0				
• EB Left										292	216	C	C
• Through													
• Right										357	183	B	D
• WB Left													
• Through										832	463	A	A
• Right										629	828	A	A
• SB Left													
• NB Left													
Jefferson Ave. (NS) at: Rancon Center Blvd. (EW) ⁵	Cross Street Stop	0	1 0	0	1 0	0	0 0	0	1 0				
• WB Left										564	114	A	D
• Right										818	450	A	A
• SB Left													

¹ When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

² Source: FHWA, Highway Capacity Software (Release 1.51).

³ Source: Transportation Research Board, Circular Number 373, (July, 1991).

⁴ Delay methodology.

⁵ Unsignalized intersection reserve capacity methodology.

TABLE 2 (CONT'D)

INTERSECTION ANALYSIS FOR EXISTING CONDITIONS

INTERSECTION	TRAFFIC CONTROL	INTERSECTION APPROACH LANES ¹				RESERVE CAPACITY ²		LEVEL OF SERVICE	
		NORTH-BOUND	SOUTH-BOUND	EAST-BOUND	WEST-BOUND	AM	PM	AM	PM
		L T R	L T R	L T R	L T R				
Jefferson Ave. (NS) at: Cherry St. (EW) ³	Cross Street Stop	0 1 0	0 1 0	0 1 0	0 0 0	329	291	B	C
• EB Left						698	759	A	A
• Right									
• NB Left									
I-15 Fwy. SB Ramps (NS) at: California Oaks Rd. (EW) ³	Cross Street Stop	0 0 0	0 1 0	0 1 0	0 1 0	32	-88	E	F
• SB Left						709	695	A	A
• Right						614	646	A	A
• WB Left									
I-15 Fwy. NB Ramps (NS) at: California Oaks Rd. (EW) ³	Cross Street Stop	0 1 0	0 0 0	0 1 0	0 1 0	76	89	E	E
• NB Left						643	149	A	D
• Right						402	631	A	A
• EB Left									
I-15 Fwy. SB Ramps (NS) at: Murrieta Hot Springs Rd. (EW) ³	Cross Street Stop	0 0 0	0 1 0	0 1 0	0 1 0	436	39	A	E
• SB Left						850	810	A	A
• Right						957	633	A	A
• WB Left									
I-15 Fwy. NB Ramps (NS) at: Murrieta Hot Springs Rd. (EW) ³	Cross Street Stop	0 1 0	0 0 0	0 1 0	0 1 0	378	39	B	E
• NB Left						796	335	A	B
• Right						905	737	A	A
• EB Left									
Jackson Ave. (NS) at: Nutmeg St. (EW) ³	Cross Street Stop	0 1 0	0 1 1	0 1 0	0 1 1	733	624	A	A
• EB Left						564	481	A	A
• Through						779	593	A	A
• Right						944	963	A	A
• WB Left						968	947	A	A
• Through						969	856	A	A
• Right									
• SB Left									
• NB Left									

¹ When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

² Source: FHWA, Highway Capacity Software (Release 1.51).

³ Unsignalized intersection reserve capacity methodology.

TABLE 2 (CONT'D)

INTERSECTION ANALYSIS FOR EXISTING CONDITIONS

INTERSECTION	TRAFFIC CONTROL	INTERSECTION APPROACH LANES ¹				RESERVE CAPACITY ² / DELAY ³ (SECS.)		LEVEL OF SERVICE	
		NORTH-BOUND	SOUTH-BOUND	EAST-BOUND	WEST-BOUND	AM	PM	AM	PM
		L T R	L T R	L T R	L T R				
Shoshonee Dr. (NS) at: Alondra Dr. (EW) ⁴ • WB Left • Right • SB Left	Cross Street Stop	0 1 0	0 1 0	0 0 0	0 1 0	857 999	877 995	A A	A A
Kasota Dr. (NS) at: Los Alamos Rd. (EW) ⁴ • SB Left • Right • EB Left	Cross Street Stop	0 0 0	0 1 0	0 1 0	0 1 0	466 913	506 969	A A	A A
Lincoln Ave. (NS) at: Avenida Arconte (EW) ⁴ • WB Left • Right • SB Left	Cross Street Stop	0 1 0	0 1 0	0 0 0	0 1 0	919 973	948 984	A A	A A
Lincoln Ave. (NS) at: Alondra Dr. (EW) ⁴ • EB Left • Right • NB Left	Cross Street Stop	0 1 0	0 1 0	0 1 0	0 0 0	742 974	882 989	A A	A A
Hancock Ave. (NS) at: Los Alamos Rd. (EW) ⁵	All Way Stop	0 1 0	1 1 1	1 1 0	1 1 0	4.4	7.3	A	B
Hancock Ave. (NS) at: Murrieta Hot Springs Rd. (EW) ⁴ • SB Left • Right • EB Left	Cross Street Stop	0 0 0	0 1 0	0 1 0	0 1 1	441 706	304 833	A A	B A

¹ When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

² Source: FHWA, Highway Capacity Software (Release 1.51).

³ Source: Transportation Research Board, Circular Number 373, (July, 1991).

⁴ Unsignalized intersection reserve capacity methodology.

⁵ Delay Methodology.

TABLE 2 (CONT'D)

INTERSECTION ANALYSIS FOR EXISTING CONDITIONS

INTERSECTION	TRAFFIC CONTROL	INTERSECTION APPROACH LANES ¹				RESERVE CAPACITY ²		LEVEL OF SERVICE	
		NORTH-BOUND L T R	SOUTH-BOUND L T R	EAST-BOUND L T R	WEST-BOUND L T R	AM	PM	AM	PM
Nutmeg St. (NS) at: Clinton Keith Rd. (EW) ⁴	Cross Street Stop	0 1 0	0 0 0	0 1 0	0 1 0	745	650	A	A
• NB Left									
• Right									
• WB Left						977	948	A	A
California Oaks Rd. (NS) at: Clinton Keith Rd. (EW) ³	Cross Street Stop	1 0 1	0 0 0	0 1 0	1 1 0	503	446	A	A
• NB Left						785	808	A	A
• Right						916	843	A	A
• WB Left									
Greer Rd. (NS) at: Clinton Keith Rd. (EW) ³	Cross Street Stop	0 0 0	1 0 1	0 1 0	0 1 0	489	489	A	A
• SB Left						830	770	A	A
• Right						962	928	A	A
• EB Left									
Zeiders Rd. (NS) at: Kellers Rd. (EW) ³	Cross Street Stop	0 0 0	0 1 0	0 1 0	0 1 0	880	879	A	A
• SB Left						999	999	A	A
• Right									
• EB Left									
I-215 Fwy. SB Ramps (NS) at: Scott Rd. (EW) ³	Cross Street Stop	0 0 0	0 1 0	0 1 0	0 1 0	374	358	B	B
• SB Left						873	807	A	A
• Right						825	812	A	A
• WB Left									
I-215 Fwy. NB Ramps (NS) at: Scott Rd. (EW) ³	Cross Street Stop	0 1 0	0 0 0	0 1 0	0 1 0	412	399	A	B
• NB Left						733	606	A	A
• Right						870	922	A	A
• EB Left									
I-215 Fwy. SB Ramps (NS) at: Clinton Keith Rd. (EW) ³	Cross Street Stop	0 0 0	0 1 0	0 1 0	0 1 0	493	469	A	A
• SB Left						837	706	A	A
• Right						823	871	A	A
• WB Left									

¹ When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

² Source: FHWA, Highway Capacity Software (Release 1.51).

³ Unsignalized intersection reserve capacity methodology.

TABLE 2 (CONT'D)

INTERSECTION ANALYSIS FOR EXISTING CONDITIONS

INTERSECTION	TRAFFIC CONTROL	INTERSECTION APPROACH LANES ¹				RESERVE CAPACITY ²		LEVEL OF SERVICE	
		NORTH-BOUND	SOUTH-BOUND	EAST-BOUND	WEST-BOUND	AM	PM	AM	PM
		L T R	L T R	L T R	L T R				
I-215 Fwy. NB Ramps (NS) at: Clinton Keith Rd. (EW) ³	Cross Street	0 1 0	0 0 0	0 1 0	0 1 0				
• NB Left	Stop					462	422	A	A
• Right						948	941	A	A
• EB Left						786	834	A	A
I-215 Fwy. SB Ramps (NS) at: Los Alamos Rd. (EW) ³	Cross Street	0 0 0	1 0 1	0 1 0	0 1 0				
• SB Left	Stop					259	167	C	D
• Right						723	569	A	A
• WB Left						667	674	A	A
I-215 Fwy. NB Ramps (NS) at: Los Alamos Rd. (EW) ³	Cross Street	1 0 1	0 0 0	0 1 0	0 1 0				
• NB Left	Stop					343	146	B	D
• Right						864	776	A	A
• EB Left						830	796	A	A
I-215 Fwy. SB Ramps (NS) at: Murrieta Hot Springs Rd. (EW) ³	Cross Street	0 0 0	1 0 1	0 1 0	0 1 0				
• SB Left	Stop					76	-72	E	F
• Right						588	751	A	A
• WB Left						594	345	A	B
I-215 Fwy. NB Ramps (NS) at: Murrieta Hot Springs Rd. (EW) ³	Cross Street	1 0 1	0 0 0	0 1 0	0 1 1				
• NB Left	Stop					164	71	D	E
• Right						616	43	A	E
• EB Left						495	401	A	A
Antelope Rd. (NS) at: Keller Rd. (EW) ³	Cross Street	0 1 0	0 1 0	0 1 0	0 1 0				
• NB Left	Stop					798	832	A	A
• Through									
• Right									
• SB Left						823	821	A	A
• Through									
• Right									
• EB Left						991	997	A	A
• WB Left						992	999	A	A

¹ When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

² Source: FHWA, Highway Capacity Software (Release 1.51).

³ Unsignalized intersection reserve capacity methodology.

TABLE 2 (CONT'D)
INTERSECTION ANALYSIS FOR EXISTING CONDITIONS

INTERSECTION	TRAFFIC CONTROL	INTERSECTION APPROACH LANES ¹				RESERVE CAPACITY ² / DELAY ³ (SECS.)		LEVEL OF SERVICE	
		NORTH- BOUND	SOUTH- BOUND	EAST- BOUND	WEST- BOUND	AM	PM	AM	PM
		L T R	L T R	L T R	L T R				
Antelope Rd. (NS) at: Clinton Keith Rd. (EW) ⁴ • SB Left • Right • EB Left	Cross Street Stop	0 0 0	0 1 0	0 1 0	0 1 0	945 962	942 956	A A	A A
Alta Murrieta (NS) at: Murrieta Hot Springs Rd. (EW) ⁵	All Way Stop	0 0 0	1 0 2	1 1 0	0 2 0	5.8	15.4	B	C
Whitewood Rd. (NS) at: Murrieta Hot Springs Rd. (EW) ⁴ • SB Left • Right • EB Left	Cross Street Stop	0 0 0	1 0 1	0 1 0	0 1 1	290 730 701	136 699 559	C A A	D A A
Via Princesa West (NS) at: Murrieta Hot Springs Rd. (EW) ⁴ • SB Left • Right • EB Left	Cross Street Stop	0 0 0	0 1 0	1 1 0	0 1 0	571 913	502 774	A A	A A
Via Princesa East (NS) at: Murrieta Hot Springs Rd. (EW) ⁴ • NB Left • Through • Right • SB Left • Through • Right • EB Left • WB Left	Cross Street Stop	0 1 0	0 1 0	1 1 0	1 1 0	361 473 769 854	226 385 718 690	B A A A	C B A A

¹ When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

² Source: FHWA, Highway Capacity Software (Release 1.51).

³ Source: Transportation Research Board, Circular Number 373, (July, 1991).

⁴ Unsignalized intersection reserve capacity methodology.

⁵ Delay Methodology.

TABLE 2 (CONT'D)

INTERSECTION ANALYSIS FOR EXISTING CONDITIONS

INTERSECTION	TRAFFIC CONTROL	INTERSECTION APPROACH LANES ¹				RESERVE CAPACITY ²		LEVEL OF SERVICE	
		NORTH- BOUND	SOUTH- BOUND	EAST- BOUND	WEST- BOUND	AM	PM	AM	PM
		L T R	L T R	L T R	L T R				
Calle Del Lago (NS) at: Murrieta Hot Springs Rd. (EW) ³	Cross Street Stop	0 1 0	0 1 0	0 1 0	0 1 0				
• NB Left Through Right						466	426	A	A
• SB Left Through Right						494	531	A	A
• EB Left						923	840	A	A
• WB Left						924	819	A	A
Winchester Rd. (NS) at: Scott Rd. (EW) ³	Cross Street Stop	0 1 0	0 1 0	0 1 0	0 1 0				
• EB Left Through Right						265	265	C	C
• WB Left Through Right						564	423	A	A
• SB Left						819	741	A	A
• NB Left						827	851	A	A
Winchester Rd. (NS) at: Keller Rd. (EW) ³	Cross Street Stop	0 1 0	0 1 0	0 1 0	0 1 0				
• EB Left Through Right						391	327	B	B
• WB Left Through Right						463	309	A	B
• SB Left						838	696	A	A
• NB Left						817	834	A	A

¹ When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

² Source: FHWA, Highway Capacity Software (Release 1.51).

³ Unsignalized intersection reserve capacity methodology.

TABLE 2 (CONT'D)

INTERSECTION ANALYSIS FOR EXISTING CONDITIONS

INTERSECTION	TRAFFIC CONTROL	INTERSECTION APPROACH LANES ¹				RESERVE CAPACITY ²		LEVEL OF SERVICE	
		NORTH-BOUND	SOUTH-BOUND	EAST-BOUND	WEST-BOUND	AM	PM	AM	PM
		L T R	L T R	L T R	L T R				
Winchester Rd. (NS) at: Pourroy Rd. (EW) ³	Cross Street	0 1 0	0 1 0	0 1 0	0 1 0	443	436	A	A
• EB Left	Stop								
Through									
Right									
• WB Left									
Through						427	343	A	B
Right									
• SB Left									
• NB Left						824	662	A	A
						793	834	A	A
Winchester Rd. (NS) at: Thompson Rd. (EW) ³	Cross Street	0 1 0	0 1 0	0 1 0	0 1 0	400	247	A	C
• EB Left	Stop								
Through									
Right									
• WB Left									
Through						437	277	A	C
Right									
• SB Left									
• NB Left						878	659	A	A
						824	799	A	A
Winchester Rd. (NS) at: Benton Rd. (EW) ³	Cross Street	1 1 0	1 1 0	0 1 0	0 1 0	433	220	A	C
• EB Left	Stop								
Through									
Right									
• WB Left									
Through						332	142	B	D
Right									
• SB Left									
• NB Left						766	587	A	A
						751	705	A	A
Winchester Rd. (NS) at: Auld Rd. (EW) ³	Cross Street	0 1 0	1 1 0	0 0 0	0 1 0	321	213	B	C
• WB Left	Stop								
Right									
• SB Left									

¹ When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

² Source: FHWA, Highway Capacity Software (Release 1.51).

³ Unsignalized intersection reserve capacity methodology.

TABLE 2 (CONT'D)

INTERSECTION ANALYSIS FOR EXISTING CONDITIONS

INTERSECTION	TRAFFIC CONTROL	INTERSECTION APPROACH LANES ¹				RESERVE CAPACITY ²		LEVEL OF SERVICE	
		NORTH-BOUND	SOUTH-BOUND	EAST-BOUND	WEST-BOUND	AM	PM	AM	PM
		L T R	L T R	L T R	L T R				
Winchester Rd. (NS) at: Hunter Rd. & Borel Rd. (EW) ³	Cross Street	1 1 0	1 1 0	0 1 0	0 1 0				
• EB Left	Stop					561	613	A	A
• Through									
• Right									
• WB Left						220	131	C	D
• Through									
• Right									
• SB Left						700	560	A	A
• NB Left						676	640	A	A
Winchester Rd. (NS) at: Murrieta Hot Springs Rd. ³	Cross Street								
North (EW)	Stop	0 1 0	0 1 0	0 0 0	0 1 0				
• WB Left						254	179	C	D
• Right									
• SB Left						750	572	A	A
Winchester Rd. (NS) at: Murrieta Hot Springs Rd. ³	Cross Street								
South (EW)	Stop	0 2 0	0 1 0	0 1 0	0 0 0				
• EB Left						64	-66	E	F
• Right									
• NB Left						573	473	A	A

¹ When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

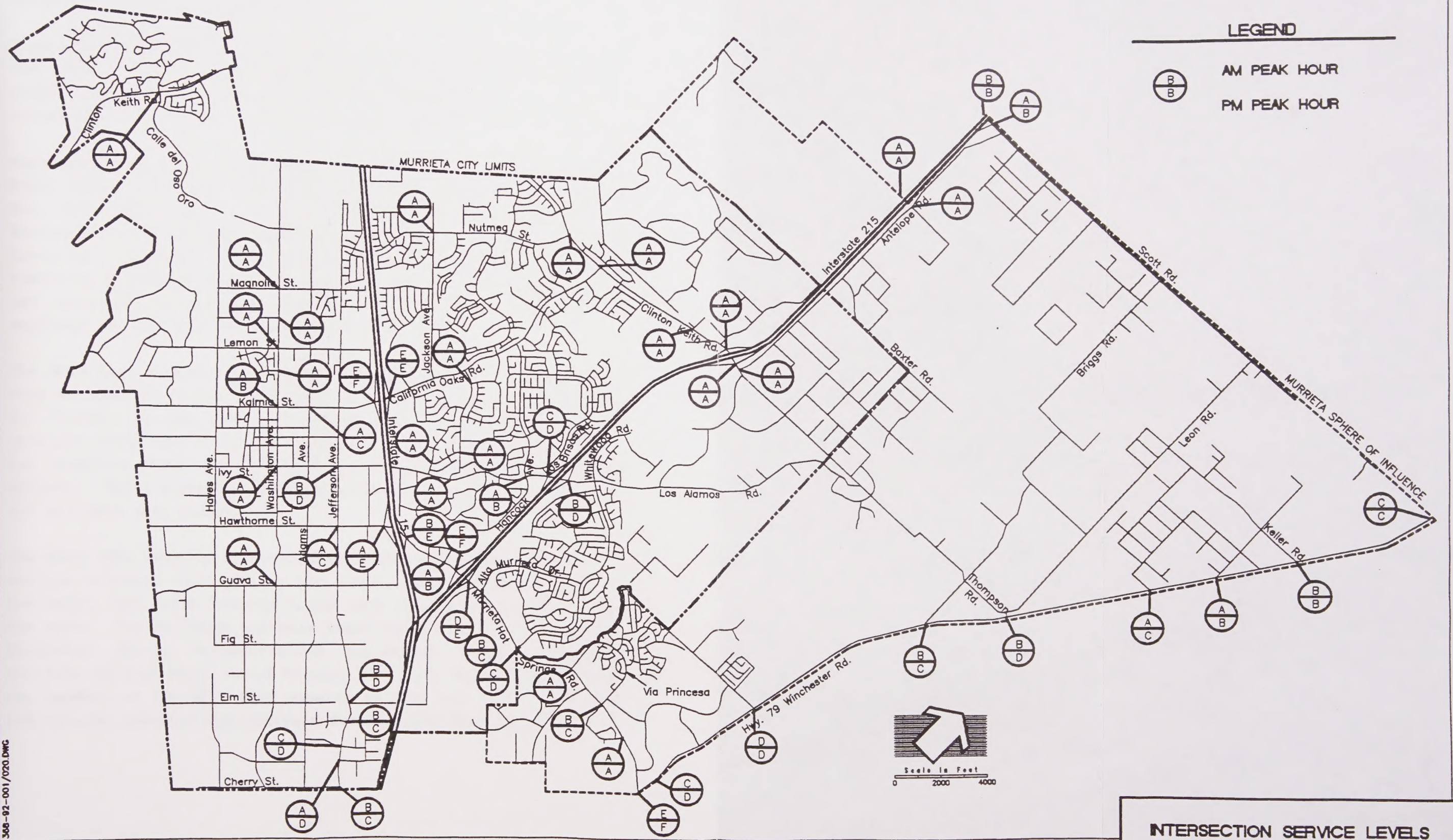
L = Left; T = Through; R = Right

² Source: FHWA, Highway Capacity Software (Release 1.51).

³ Unsignalized intersection reserve capacity methodology.

CITY OF MURRIETA • GENERAL PLAN

306-92-001/020.DWG



Previous Circulation Plans/Studies

Riverside County General Plan Circulation Element: Exhibit G shows the County of Riverside General Plan Circulation Element roadway classifications for roadways in the study area. Exhibit H illustrates the Riverside County arterial street cross-sections.

Southwest District Traffic Model: The Southwest District Traffic Model (SDTM) was developed as a coordinated study in response to the "buildout" traffic analysis requirements of the County of Riverside Transportation Department. The SDTM East Subarea was the focus of a coalition of project applicants known as the Airport Community Transportation Study (ACTS) group. The SDTM West Subarea was initiated by Donahue Schriber to fulfill a condition of approval for the Murrieta Springs Mall project.

The SDTM East Subarea is bounded by Scott Road to the north, the City of Temecula to the south, Lake Skinner to the east, and the I-215 Freeway to the west. The SDTM East Subarea provided the areawide data base needed to analyze buildout traffic conditions for Specific Plans in the area surrounding the French Valley Airport. Three separate land use/network scenarios were analyzed for the SDTM East Subarea.

The SDTM West Subarea is bounded by Scott Road/Bundy Canyon Road and the Wildomar community to the north, the City of Temecula to the south, the I-215 Freeway to the east and Rancho Santa Rosa to the west. The buildout analysis required by Condition 15 of the Riverside County Transportation Department letter regarding Murrieta Springs Mall, dated October 23, 1990, was fulfilled with the funding of the SDTM West Subarea on June 28, 1991. One land use/network scenario was analyzed for the SDTM West Subarea.

CITY OF MURRIETA • GENERAL PLAN

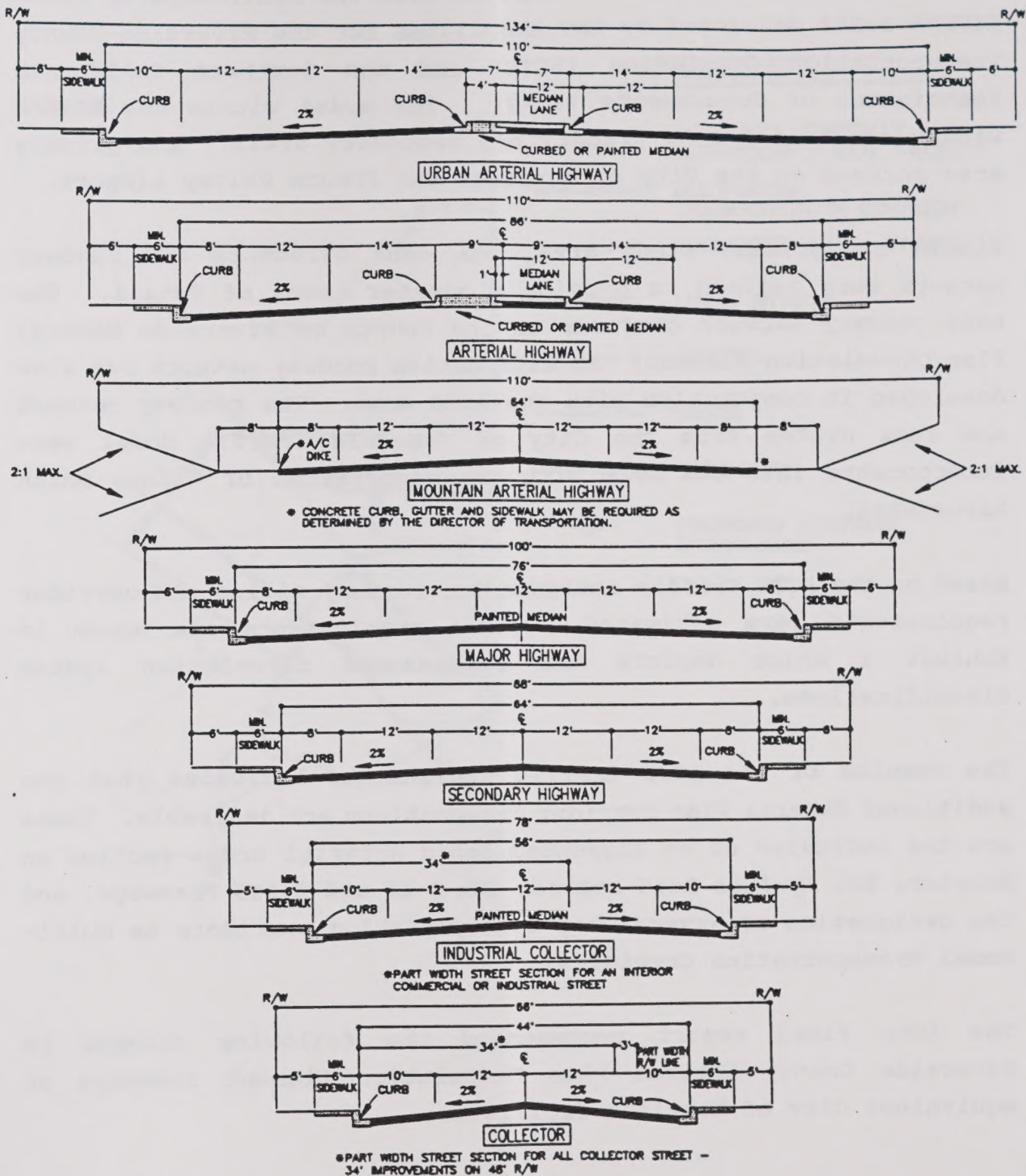


LEGEND

CLASSIFICATION	RIGHT OF WAY	SYMBOL
SECONDARY	86'	---
MAJOR	100'	- - - -
ARTERIAL	110'	- · - · -
MOUNTAIN ARTERIAL	110'	- · - · -
URBAN ARTERIAL	134'	- · - · -
EXPRESSWAY	VARIABLE	=====
FREEWAY	VARIABLE	=====
SPECIFIC PLAN ROAD	VARIABLE	=====
BRIDGE		⌒
SPHERE OF INFLUENCE		○
STATE AND FEDERAL LANDS		▨
1/2 MILE ACCESS RESTRICTION		▨
25' TRANSPORTATION EASEMENT		☆ ☆ ☆

RIVERSIDE COUNTY
GENERAL PLAN
CIRCULATION ELEMENT

EXHIBIT G



RIVERSIDE COUNTY GENERAL PLAN
 ROADWAY CROSS-SECTIONS

EXHIBIT H

The SDTM is a windowed model derived from the microcomputer based RIVSAN model developed by DKS Associates for the Riverside County Transportation Commission (RCTC) and the Southern California Association of Governments (SCAG). The model within the RIVSAN window is divided into primary and secondary areas. The primary area focuses on the City of Murrieta and French Valley Airport.

Within the primary study area, the zone structure and roadway network were refined to provide a greater level of detail. The base roadway network conforms to the County of Riverside General Plan Circulation Element. An alternative roadway network was also developed in conjunction with the ACTS area. The roadway network and zone system from the City of Temecula Traffic Model were incorporated into the SDTM with the cooperation of Wilbur Smith Associates.

Based on the ACTS traffic assignments, roadway sizing and corridor requirements were estimated. These requirements are shown in Exhibit I which depicts the recommended circulation system classifications.

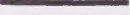
The results of the ACTS traffic assignments indicated that two additional General Plan corridor designations are desirable. These are the inclusion of an Augmented Urban Arterial cross-section on Murrieta Hot Springs Road between the I-15 and I-215 Freeways, and the designation of several key transportation corridors as Multi-Modal Transportation Corridors.

The ACTS final report recommended the following changes to Riverside County General Plan Circulation Element roadways or equivalent City of Murrieta facilities:

CITY OF MURRIETA • GENERAL PLAN



LEGEND

- | | |
|---|---|
|  | REGIONAL FREEWAY
CORRIDOR / HOV FACILITY |
|  | MULTI-MODAL
TRANSPORTATION CORRIDOR |
|  | AUGMENTED URBAN ARTERIAL |
|  | URBAN ARTERIAL |
|  | ARTERIAL |
|  | MAJOR |
|  | SECONDARY |
|  | PROPOSED ADDITIONAL
INTERCHANGE |



ACTS CIRCULATION
RECOMMENDATIONS

EXHIBIT I

- Designate four multi-modal transportation corridors: Palomar Street/Washington Avenue/Diaz Road north of Winchester Road, Winchester Road north of Diaz Road, Clinton Keith Road between Palomar Street and Winchester Road, and Meniffee Road/Los Alamos Road/Ivy Street north of Washington Avenue.
- Upgrade Keller Road/Baxter Road between Briggs Road and the I-215 Freeway to an Arterial classification from a Secondary classification.
- Upgrade Nutmeg Street between Washington Street and Jefferson Avenue to a Major classification from a Secondary classification.
- Upgrade Murrieta Hot Springs Road between the I-15 and I-215 Freeways to an Augmented Urban Arterial classification from an Urban Arterial classification.
- Upgrade Murrieta Hot Springs Road between the I-215 Freeway to east of Whitewood Road, and also between Date Street and Sky Canyon Drive, to an Urban Arterial classification from an Arterial classification.
- Upgrade Date Street between Madison Avenue and Margarita Road to an Urban Arterial classification from an Arterial classification.
- Upgrade Borel Road between Winchester Road and Butterfield Stage Road to a Major classification from a Secondary classification.
- Reclassify Thompson Road between Leon Road and Washington Street to a Secondary classification from a Major

classification, in conjunction with the realignment of Leon Road at Winchester Road to create a more consistent through route for north-south traffic.

- Upgrade Sky Canyon Drive from Borel Road to Rancho Club Drive to a Major classification from a Secondary classification.
- Upgrade Leon Road from north of Borel Road to Thompson Road to a Major classification from a Secondary classification.

Provide for the following new roadway features:

- An interchange on the I-215 Freeway at Keller Road.
- The extension of Keller Road northwest of the I-215 Freeway to Bradley Road as a Major classification.
- The realignment of Baxter Road between Winchester Road and Briggs Road to join with Keller Road at Meniffee Road.
- The realignment of Leon Road between Baxter Road and Winchester Road.
- The extension of Beeler Road from Scott Road to Washington Street as a Secondary classification.
- The extension of Auld Road northwest from Winchester Road to Clinton Keith Road as a Major classification.
- The extension of Hunter Road between Winchester Road and Whitewood Road as a Major classification.

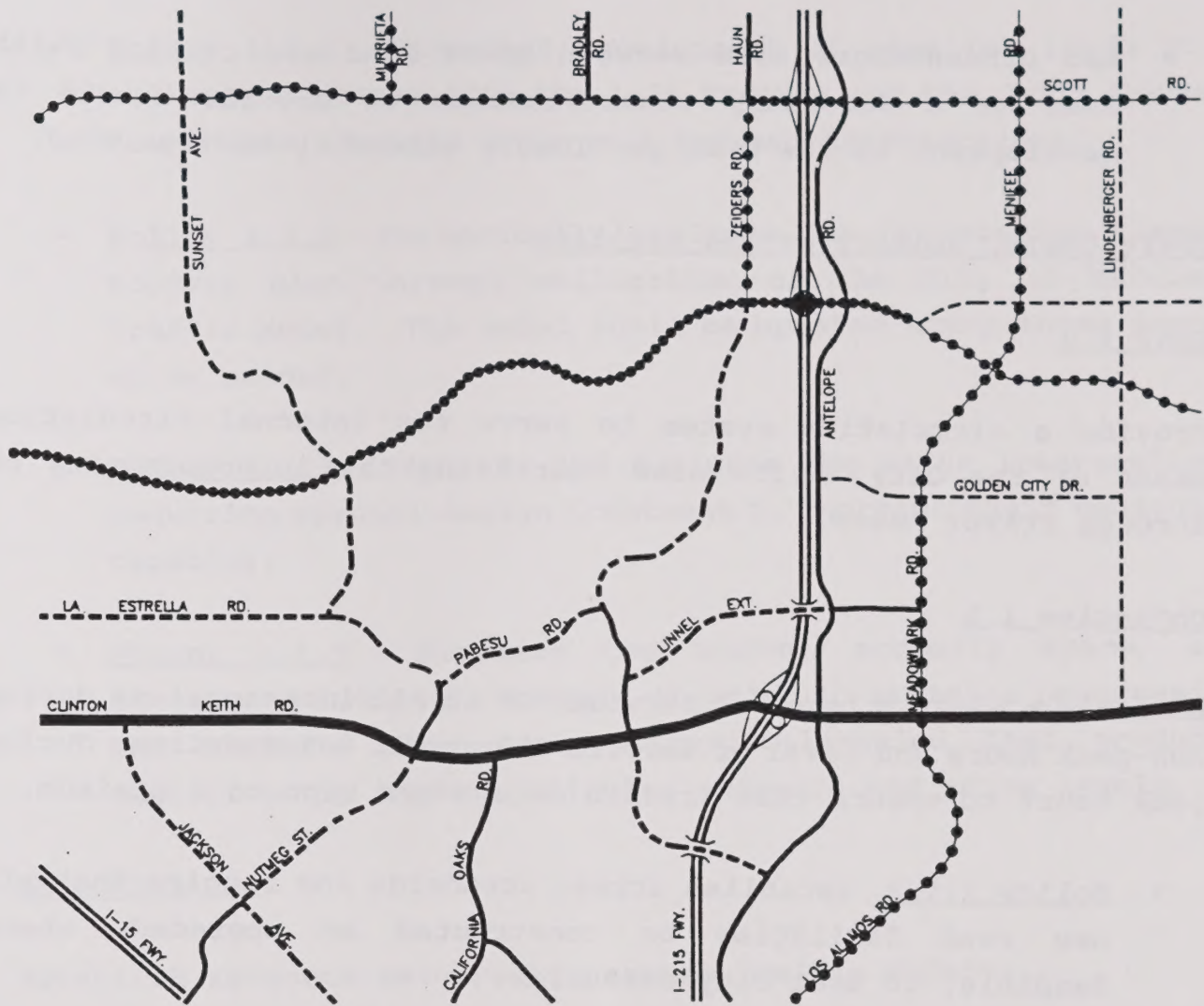
- The extension of La Estrella Road between Nutmeg Street and Menifee Road including a new I-215 Freeway overcrossing as a Major classification.
- The extension of La Estrella Road between Frederick Street and Baxter Road as a Major classification.
- The northerly extension of Nutmeg Street to Sunset Avenue between Scott Road and Clinton Keith Road as a Secondary classification.
- The extension of Zeiders Road from Keller Road to Clinton Keith Road as a Secondary classification.
- The addition of overcrossings of the I-215 Freeway, one between Murrieta Hot Springs Road and Los Alamos Road, and one between Los Alamos Road and Clinton Keith Road.

The Southwest District Traffic Model represented a significant "first step" to understanding the long-term transportation needs of the City of Murrieta in the context of existing and proposed land use plans. Significant changes were recommended for both the City and County General Plan Circulation Systems. Recommended land use changes were also presented for the participating ACTS properties. These network and land use recommendations were taken into consideration for the City of Murrieta General Plan.

North Murrieta Traffic Model: The North Murrieta Traffic Model (NMTM) is an expanded version of the Southwest District Traffic Model. The NMTM includes the proposed land uses for the Murrieta Hills Specific Plan, Greer Ranch Specific Plan, Hamilton Property Specific Plan, Murrieta Highlands Specific Plan, and Golden City Specific Plan.

NMTM recommendations are summarized on Exhibit J and discussed below:

- Upgrade/extend Keller Road west of the proposed new Keller Road interchange with the I-215 Freeway to an Urban Arterial classification.
- Add Zeiders Road between Scott Road and Clinton Keith Road as a Secondary/Major/Arterial and to serve areawide north-south travel needs.
- Upgrade Pabesu Road north of Clinton Keith Road between Nutmeg Street and Greer Road/Zeiders Road to a Secondary classification.
- Add Meadowlark Road between Keller Road and Clinton Keith Road as an Arterial classification to serve as a more appropriately aligned buffer between land use areas east of the I-215 Freeway.
- Add Golden City Drive between Antelope Road and Lindenberger Road as a Secondary classification.
- Realign Baxter Road between Keller Road and Briggs Road to a more appropriate alignment.
- Eliminate Meniffee Road between Keller Road and Los Alamos Road.



LEGEND

-  REGIONAL FREEWAY CORRIDOR / HOV FACILITY
-  MULTI-MODAL TRANSPORTATION CORRIDOR
-  URBAN ARTERIAL
-  ARTERIAL
-  MAJOR
-  SECONDARY
-  PROPOSED ADDITIONAL INTERCHANGE

NORTH MURRIETA TRAFFIC MODEL
RECOMMENDATIONS

EXHIBIT J

- Add Lindenberger Road between Scott Road and Clinton Keith Road as a Secondary classification to provide access to development in the area previously served by Meniffee Road.

Draft Goals, Objectives and Policies

Goal 1.0

Provide a circulation system to serve the internal circulation needs of the City, while also addressing the intercommunity or through travel needs.

Objective 1.1

Maintain a minimum Level of Service "C" at all intersections during non-peak hours and Level of Service "D" at all intersections during peak hours to ensure that traffic delays are kept to a minimum.

- Policy 1.1.1 Establish street standards and require that all new road facilities be constructed or upgraded, where feasible, to meet City standards.
- Policy 1.1.2 Require an adequate evaluation of potential traffic impacts associated with proposed new developments prior to project approval, and implementation of appropriate mitigation measures prior to or in conjunction with project development.
- Policy 1.1.3 Coordinate with Caltrans to implement necessary improvements at intersections where the agencies have joint jurisdiction.

- Policy 1.1.4 Encourage development of parallel roads at a suitable distance from the I-15 Freeway and the I-215 Freeway to provide adequate intervals between intersections.
- Policy 1.1.5 Periodically evaluate the Circulation Element roadway plan through utilization of the City of Murrieta Traffic Model. The model shall be updated every three years, or as needed.
- Policy 1.1.6 Identify and evaluate the major intersections requiring special design treatment to increase their vehicular capacity.
- Policy 1.1.7 Minimize the number, properly space, and interconnect traffic signals in order to maximize progression and minimize the acceleration/deceleration that produces significantly higher vehicular emission and noise levels.

Objective 1.2

Establish adequate measures to ensure traffic safety.

- Policy 1.2.1 Require new developments to be served by roads of adequate capacity and design standards to provide reasonable access by car, truck, transit, or bicycle.
- Policy 1.2.2 Discourage parking on all Urban Arterial, Arterial and Major roadways to increase the traffic capacity of these roadways and provide for bike lanes.
- Policy 1.2.3 Enforce speed restrictions throughout the City.

- Policy 1.2.4 Require that future roads and improvements to existing roads be designed to minimize conflicting traffic movements such as turning, curb parking, and frequent stops.
- Policy 1.2.5 Require that the development of new private driveways do not introduce significant traffic conflicts along General Plan roadway and collector streets.
- Policy 1.2.6 Require that pedestrian and vehicular traffic be separated to the maximum feasible extent.
- Policy 1.2.7 Establish an ongoing maintenance program to ensure the safety of the City's roadway system.

Objective 1.3

Preserve the quality of residential neighborhoods by maintaining the legally enforceable speed limits and by discouraging the flow of truck traffic and through traffic in these areas.

- Policy 1.3.1 Enforce speed limits of 25 miles per hour in those areas defined by the California Vehicle Code as residential neighborhoods.
- Policy 1.3.2 Establish weight restrictions where necessary on routes traversing through residential neighborhoods.
- Policy 1.3.3 Maintain adequate levels of service on major City streets pursuant to Objective 1.1 as measures to avoid diversion of through traffic into residential neighborhoods and adequate levels of safety pursuant to Objective 1.2.

Objective 1.4

Establish financing programs which incorporate adequate funding for the City's roadway system.

- Policy 1.4.1 Identify and evaluate potential revenue local sources for financing roadway system development and improvement projects.
- Policy 1.4.2 Pursue viable revenue sources to meet the roadway system funding needs from state and federal sources.
- Policy 1.4.3 Implement street widenings only when Transportation System Management strategies, such as the removal of on-street parking, lane restriping, etc., have been exhausted.

Goal 2.0

Promote a regional transportation system that serves existing and future travel between Murrieta and other population and employment centers within the region.

Objective 2.1

Interface with appropriate jurisdictions and agencies to encourage the timely improvement of roadway and transit facilities which address areawide and regional travel needs.

- Policy 2.1.1 Support the update and completion of the Riverside County General Plan Circulation Element in response to the City General Plan Circulation Element.

- Policy 2.1.2 Actively pursue the construction of a new interchange south of the I-15/I-215 Confluence and other recommended system improvements in cooperation with Caltrans, the City of Temecula, Riverside County, and local developers. Measures should be taken to preserve anticipated right-of-way needs and to identify funding mechanisms for the interchange improvement.
- Policy 2.1.3 Actively pursue the construction of a new east-west corridor and interchange south of Scott Road in cooperation with Caltrans, Riverside County, the City of Lake Elsinore and local developers.
- Policy 2.1.4 Actively pursue the improvements to existing interchanges within the City and construction of new overpasses as required to achieve the adopted service level standards.
- Policy 2.1.5 Coordinate with Western Riverside Council of Governments to identify, protect, and pursue opportunities for light rail transit along major transportation corridors which connect Temecula to other population centers.
- Policy 2.1.6 Encourage the formation of a special Southwest County task force which would be responsible for identifying and prioritizing selected system improvements having regional significance and the development of funding sources which would allow for the timely implementation of these improvements.

Goal 3.0

Accommodate alternatives to private automobile transportation that meet the needs of all City residents.

Objective 3.1

Require dedication and/or construction of appropriate facilities in support of a public transportation system.

- Policy 3.1.1 Coordinate with the Riverside Transit Agency to provide fixed route transit service along transportation corridors connecting to employment and commercial areas, health care facilities, and major recreation areas.
- Policy 3.1.2 Require construction of bus turnouts adjacent to new developments where transit demand levels may be sufficient in the future to warrant such accommodations.
- Policy 3.1.3 Investigate and promote improved demand responsive transit services for elderly and disabled persons.
- Policy 3.1.4 Provide for express transit service through implementation of park-and-ride facilities along regional transportation corridors.
- Policy 3.1.5 Review site plans to determine if pedestrian access from the interior of new residential areas to public transit stops will be direct and convenient.

Objective 3.2

Provide a circulation network that accommodates the safe and efficient movement of cyclists on bike lanes and bike trails.

- Policy 3.2.1 Create a system of bicycle lanes within the street right-of-way to meet the needs of both the local and

commuter cyclist. The lanes shall be designed for the safety of the cyclist.

- Policy 3.2.2 Adequate traffic control devices shall be provided for bicycle crossings.
- Policy 3.2.3 Traffic signal phasing shall be adequate for bicycle turning and straight-through movements.
- Policy 3.2.4 Off-street bicycle trails should use open space corridors, flood control, and utility easements where possible. Such trails shall minimize automobile cross traffic.

Objective 3.2

Provide a system of sidewalks or pathways in residential and commercial areas that provides a safe environment for pedestrians.

- Policy 3.2.1 Future Specific Plan developments shall contain an internal system of trails linking schools, shopping centers, and other public facilities with residences.
- Policy 3.2.2 Review site plans to determine if residential, commercial and office land uses are designed for pedestrian access.
- Policy 3.2.3 Require the installation of wheelchair ramps on all new sidewalks and encourage their installation in older neighborhoods.

Objective 3.3

Provide for the development of equestrian and hiking trails in appropriate areas of the City.

- Policy 3.3.1 Locate hiking trails in appropriate areas identified as permanent open space, agricultural edges, public utility ROW's and easements, flood control channels, and areas designated for rural and estate density.
- Policy 3.3.2 Encourage the development of a trail system that will not create unsafe situations for users or residents of the City.
- Policy 3.3.3 At the time of precise alignment studies, and in conjunction with the required environmental assessments, the City shall review trail proposals to determine the likelihood of potential impacts upon existing or planned development. Mitigation measures or alternatives will be implemented where appropriate and feasible.
- Policy 3.3.4 Motorized vehicles and cycles shall be prohibited from using the trail system.
- Policy 3.3.5 Encourage the location of equestrian boarding centers to provide easy access to the system.
- Policy 3.3.6 Require equestrian boarding centers to meet all minimum public health standards for food, shelter, and hygiene.

Goal 4.0

Provide an adequate supply of private off-street and public parking to meet the needs of residents and visitors to the City.

Objective 4.1

Enforce and periodically update the zoning ordinance which specifies minimum parking requirements for various types of land use.

- Policy 4.1.1 Enforce the parking ordinance and standard requirements such as necessary design features, the number of required handicapped parking spaces, etc. in conjunction with the parking ordinance.
- Policy 4.1.2 Pursue methods of encouraging the provision of increased on-site parking supply through a range of techniques including redevelopment activities.

Objective 4.2

Provide joint-use and public parking facilities where needed by special assessment districts or other mechanisms.

- Policy 4.2.1 Require developers to provide adequate on-site parking and/or to contribute to a program to acquire and/or maintain off-site facilities.
- Policy 4.2.2 Work cooperatively with developers and the business community to develop funding mechanisms for the construction of future parking facilities.

Goal 5.0

Manage peak hour traffic flow and demand on the circulation system to reduce traffic congestion where necessary and feasible.

Objective 5.1

Provide for the development and monitoring of Travel Demand Management (TDM) programs at locations where tripmaking is concentrated.

- Policy 5.1.1 Require transportation demand management plans to be submitted for preliminary review at the Specific Plan or Plot Plan stage of site development and submitted for final approval prior to the issuance of building permits, in accordance with the City's Transportation Demand Management Ordinance.
- Policy 5.1.2 Encourage the implementation of employer Travel Demand Management (TDM) requirements included in the Southern California Air Quality Management District's Regulation 15 of the Air Quality Management Plan.
- Policy 5.1.3 Establish a local Congestion Management Plan and monitor the performance and effectiveness of travel demand management programs within the City.

Circulation Plan Development

With the initiation of the General Plan process, review of all aspects of planning issues affecting the city was begun by City staff and the General Plan Advisory Committee (GPAC). In beginning the review of Circulation Element issues, fortunately a significant

amount of circulation system analysis and planning had been completed recently for development projects subject to County of Riverside, City of Murrieta and City of Temecula review. These efforts produced circulation recommendations which provided a starting point for the City of Murrieta Circulation Plan.

The most significant of these analysis efforts was the North Murrieta Traffic Model. This study proposed a revised circulation plan to meet the travel demand requirements of the land uses of the Southwest Area Plan and proposed specific plans.

Alternative circulation and land use plans were considered by the consultant team, City staff and GPAC over a series of monthly meetings. A preliminary land use plan and circulation plan for the General Plan study area was then analyzed in the initial application of the Murrieta Traffic Model during October, 1992. The results of the traffic model forecast were then used by the GPAC to refine the preliminary plans to produce a preferred land use plan and preferred circulation plan with Planning Commission and City Council input. The Preferred Circulation Plan of November 1992 is illustrated in Exhibit K.



PREFERRED CIRCULATION PLAN
(NOVEMBER 1992)

EXHIBIT K

TRAFFIC MODEL DESCRIPTION

This section of the report describes the operational procedures and data input formats of the model. The subdivision of the modeling area into a representative zone system, and the creation of the roadway network are described. The procedures utilized for trip generation and distribution, and assignment of traffic to the roadway network are discussed.

The computer modeling process consists generally of seven individual but interrelated steps. These are:

- Definition of a traffic analysis zone system;
- Definition of a roadway network to serve the zone system;
- Determination of efficient and logical route paths through the network between the individual traffic analysis zones;
- Collection of land use data for each of the traffic analysis zones;
- Determination of trip generation within each traffic analysis zone;
- Determination of the distribution of trip-ends between the traffic analysis zones for three individual trip purposes; and
- Assignment of trips to the individual roadway segments of the overall roadway network.

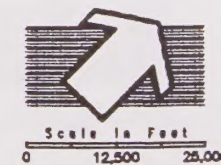
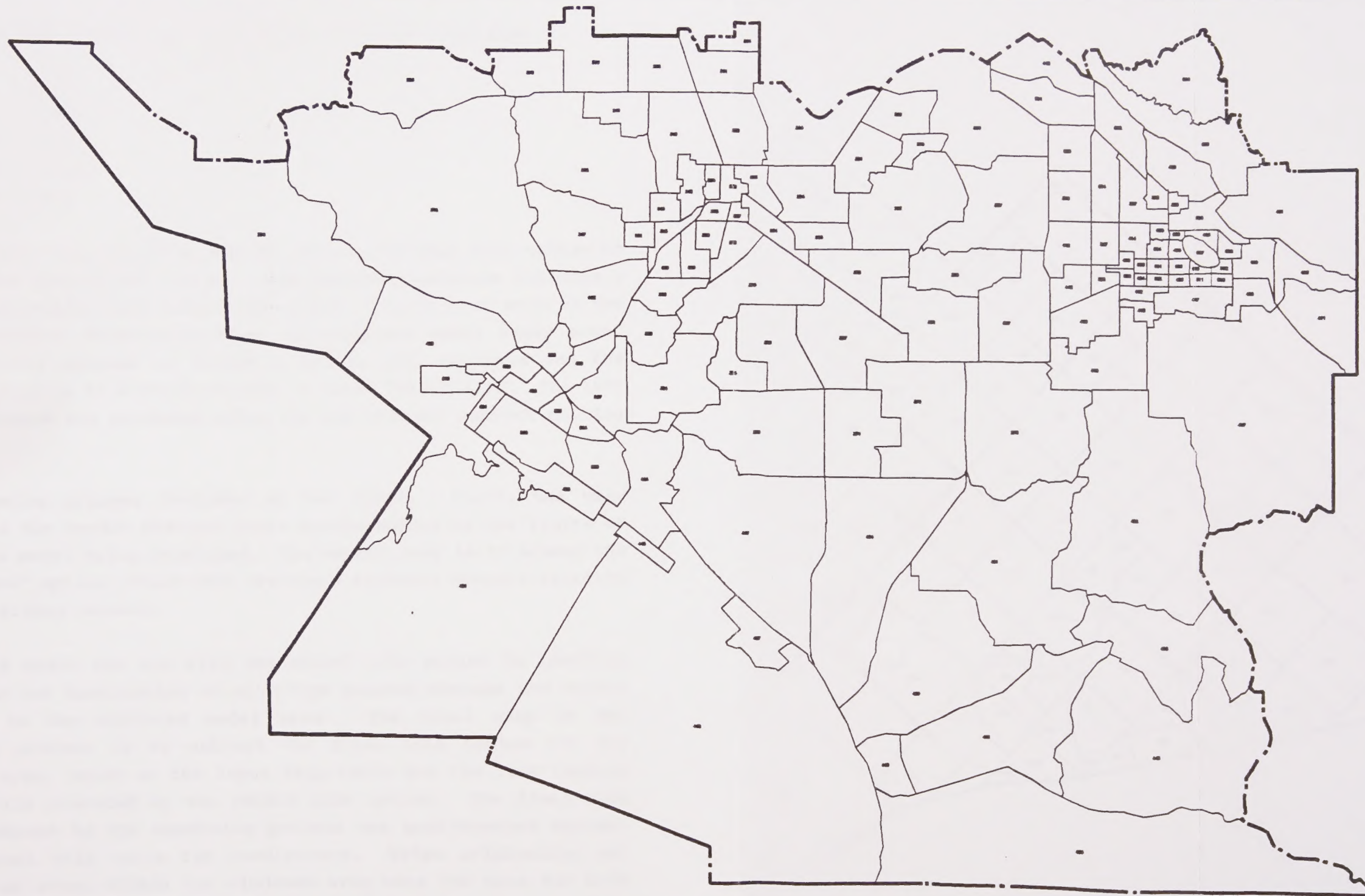
RIVSAN Window

The Murrieta Traffic Model (MTM) is derived from a window model based on the RIVSAN model updated for the Riverside County Transportation Commission (RCTC) and SCAG, and the North Murrieta Area Traffic Model (MATM) developed by ROBERT KAHN, JOHN KAIN & ASSOCIATES, INC.. The windowing process requires that the windowing procedure be performed for each year to be analyzed. The trip tables for a 1991 base year model and a future forecast year corresponding to the RIVSAN 2015 forecast year have been extracted as part of this two-part windowing process. The RIVSAN zone structure within the window area is illustrated on Exhibit L.

The 1990 base year model was developed as part of the work performed for the RCTC Measure A Project Alternatives Analysis (MAPAA). The network used in this model was also used to develop the SDTM 1991 base year model.

Several Year 2015 forecasts were developed for the RCTC MAPAA, including a No Project forecast and a number of scenarios exploring possible improvement projects to be constructed with Measure A and possibly other funding sources. The scenario chosen as the basis for windowing the SDTM/MATM/ERTM future forecast models is the Measure A funded mixed-flow alternative.

The trip table used in the windowing process is the five purpose person trip table that is output from the trip distribution step of the RIVSAN model process. The components of the trip table related to the windowed model are (1) the trips which travel through the window area without stopping, (2) trips which originate outside the window area with destinations inside the window area, and (3) trips originating inside the window area with destinations outside of it.



RIVERSIDE TRANSPORTATION
ANALYSIS ZONES

EXHIBIT L

The trip purposes used in the RIVSAN trip table file are:

- Home - Work
- Other - Work
- Home - Other
- Other - Other
- Home - Shop

The trip table was factored into AM, PM and Off-peak trip tables to provide the time-of-day format. The windowing process includes a traffic assignment that tracks the source of traffic on each of the cordon stations entering/exiting the windowed model study area. This tracking process is termed a select link analysis and the TRANPLAN program to accomplish this is named SELECT LINK. The 1990 RIVSAN network was windowed using the NIS graphic network editing tool.

The windowing process consists of two steps. First, the user identifies the cordon station links corresponding to the limits of the window model being developed. The second step is to access the NIS "window" option, which then creates a windowed network directly from the RIVSAN network.

The RIVSAN model was run with the SELECT LINK option to identify the origin and destination of all trips passing through the cordon stations to the windowed model area. The final step in the windowing process is to extract the final trip tables for the windowed area, based on the input trip table and the link loading history file produced by the SELECT LINK option. The final trip table produced by the windowing process was spot-checked against the original trip table for consistency. Trips originating and ending from zones within the windowed area were the same for both trip tables. The sum of the cordon station trips representing

external trips, were equal to the number of trips made from the internal zone to a zone not within the windowed model. In effect, the number of trips made from an internal zone was the same for both trip tables, with the same number of internal-to-internal zone trips as the original trip table, and the cordon station trips making up the remaining internal-to-external and external-to-internal trips.

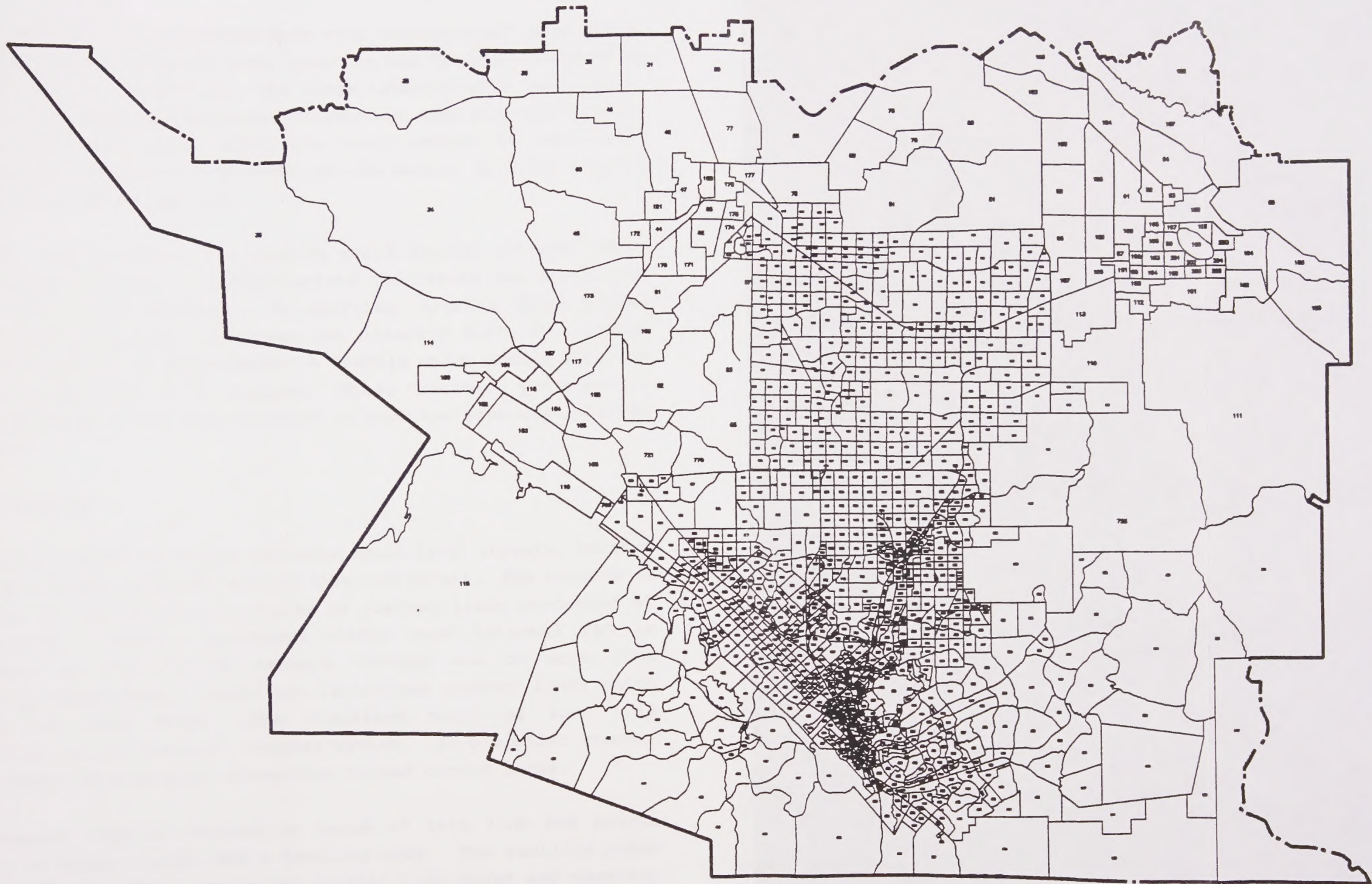
The trip tables provided were initially person trips, not vehicle trips. To convert person trips to vehicle trips, the following auto occupancy factors were used:

<u>TRIP PURPOSE</u>	<u>AVERAGE PERSONS PER VEHICLE</u>
Home - Work	1.2
Other - Work	1.1
Home - Other	1.8
Other - Other	1.3
Home - Shop	1.5

Zone System

To produce a forecast of traffic volumes within the modeling area, traffic must be loaded onto the roadway network in a manner which approximates how real traffic enters and uses the real roadway system. To accomplish this, the MTM primary study area is subdivided into a traffic analysis zone (TAZ) system as shown on Exhibit M. The location of the overall primary area within the RIVSAN window is illustrated on Exhibit N.

Each TAZ represents the area where traffic is generated (expressed as a number of trip "productions" and "attractions") by the land uses in that TAZ. During the trip distribution stage of the



TRANSPORTATION ANALYSIS ZONES
PRIMARY AND SECONDARY STUDY AREAS

EXHIBIT N

process, traffic is distributed from each "production" zone to all other zones of the modeling area based on the "attractiveness" of each other zone. In this way, the zones interact with each other. To insure that there is adequate interaction, the zone system must be subdivided into areas which are small enough to accurately represent the distribution process and the manner in which traffic loads to the roadway network.

The study area is tied to the outside world through external zones called cordon stations. Traffic enters and leaves the study area through the cordon stations. In addition, traffic which passes through the study area, but does not interact with it, (termed "through" traffic) is represented as traffic which passes directly from one cordon station to another. These "cordons" are assigned trip "productions" and "attractions" in much the same way internal zones are.

Roadway Network

The roadway network generally excludes local level streets, because it is impractical to model at that level of detail. The network is described in the model as a series of roadway links connected at node points. Traffic generated within each internal TAZ is introduced to the roadway network through one or more zone "centroid" connectors. These are fictitious roadway links which connect the zone center (the idealized point of zone trip generation) to the arterial roadway system. In a similar manner, cordon zones have special connectors termed cordon links.

Each roadway link is defined in terms of it's link end points (nodes), a unique length and a facility code. The facility codes for the network, which define an initial link speed and capacity

for each of 3 assignment periods (AM, PM and off-peak), are listed in Table 3.

Trip Generation

Trip generation within each TAZ of the modeling primary area is based on land use data consistent with the land use categories listed in Table 4. Residential land uses are expressed in dwelling units. All other non-residential land uses are expressed in net acres.

Trip generation rates for each land use category are shown in Table 4. Table 4 also lists daily trip production/attraction splits by trip purpose for each of the proposed land use categories. Trip generation is determined for each of 3 traditional "trip purposes": home-based work, home-based non-work, and non-home-based. The home-based work trip purpose represents all trips made from dwelling units to places of employment, both within and external to the study area. The home-based non-work trip purpose represents all trips made from dwelling units to non-work land uses. This includes trips made for purposes such as shopping, doctor visits, banking, recreation, etcetera. The non-home-based trip purpose includes all trips which do not have a residence as a point of origin, such as work-related trips from a place of employment, and the shipping of manufactured goods. Models sometimes use additional trip purposes on occasion to further refine trip making patterns under unusual circumstances.

Trip generation is expressed in terms of "productions" and "attractions". Each trip made in the model has two "trip-ends", a production end and an attraction end. The production trip-ends in the model are related to residential dwelling units for "home-based" trip purposes. Regardless of whether the direction of the

TABLE 3
ROADWAY NETWORK FACILITY CODES

FACILITY CODE	SPEED	1 OR 2 WAY	PERIOD CAPACITY ¹				TYPE
			AM	PM	OFF-PEAK	ADT ²	
2	25	2	20,000	20,000	20,000	100,000	Centroid Connector
9	25	2	20,000	20,000	20,000	100,000	Centroid Connector
10	25	2	20,000	20,000	20,000	100,000	Centroid Connector
11	30	2	1,200	1,800	6,000	18,000	2-U - Collector
19	10	2	500	800	2,500	10,000	Dirt
20	25	2	1,200	1,800	6,000	18,000	2-U - Collector
21	30	2	1,800	2,800	9,000	20,000	2-D - Collector
23	40	2	1,200	1,800	6,000	18,000	2-U - Collector
4	35	2	2,400	3,600	12,000	30,000	4-U - Secondary
12	35	2	2,400	3,600	12,000	30,000	4-U - Secondary
30	35	2	2,400	3,600	12,000	30,000	4-U - Secondary
31	40	2	2,400	3,600	12,000	30,000	4-U - Secondary
3	40	2	3,200	4,800	16,000	38,000	4-D - Major/Arterial
22	40	2	3,200	4,800	16,000	38,000	4-D - Major/Arterial
32	40	2	3,200	4,800	16,000	38,000	4-D - Major/Arterial
40	40	2	3,200	4,800	16,000	38,000	4-D - Major/Arterial
41	40	2	3,200	4,800	16,000	38,000	4-D - Major/Arterial
42	40	2	3,200	4,800	16,000	38,000	4-D - Major/Arterial
50	40	2	4,800	7,200	24,000	59,000	6-D - Urban Arterial
51	45	2	4,800	7,200	24,000	59,000	6-D - Urban Arterial
52	40	2	4,800	7,200	24,000	59,000	6-D - Urban Arterial
53	40	2	4,800	7,200	24,000	59,000	6-D - Urban Arterial
61	50	1	4,000	6,000	20,000	40,000	2-lane Freeway Connector
62	45	2	6,000	9,000	30,000	80,000	Expressway
63	45	2	6,000	9,000	30,000	80,000	Expressway
1	55	1	14,000	21,000	70,000	95,000	4-lane Freeway
72	55	1	7,000	10,500	35,000	43,000	2-lane Freeway
73	55	1	10,500	15,750	52,500	69,000	3-lane Freeway
74	55	1	14,000	21,000	70,000	95,000	4-lane Freeway
75	55	1	10,500	15,750	52,500	69,000	3-lane Freeway
76	55	1	14,000	21,000	70,000	95,000	4-lane Freeway
77	55	1	17,500	26,250	87,500	120,000	5-lane Freeway
78	55	1	21,000	31,500	105,000	138,000	6-lane Freeway
8	40	2	3,200	4,800	16,000	32,000	Generalized Ramps
81	18	1	2,000	3,000	10,000	20,000	1-lane Freeway Ramps
82	18	1	4,000	6,000	20,000	35,000	2-lane Freeway Ramps
84	40	2	3,200	4,800	16,000	20,000	Generalized Ramps
85	18	1	2,000	3,000	10,000	20,000	1-lane Freeway Ramps

¹ Period capacities are for combined lanes one direction only and are derived from Table 3-5 Task 1.1.2 Milestone Report, Documentation of RIVSAN Conversion to TRANPLAN by DKS Associates, February 14, 1991.

² ADT capacities are shown for reference only and are not utilized by the model except for determination of daily volume to capacity ratios shown in report exhibits.

TABLE 4
LAND USE BASED VEHICLE TRIP GENERATION FACTORS
RIVERSIDE COUNTY TRAFFIC MODELS
9-16-91

LAND USE CODE	DESCRIPTION	DAILY TRIP RATE	EQUIVALENT TRIP RATE	HOME-BASED WORK		HOME-BASED NON-WORK		NON-HOME BASED		PERSONS/ DU	RETAIL EMPLOYEES/ ACRE	NON-RETAIL EMPLOYEES/ ACRE
				XP's	XA's	XP's	XA's	XP's	XA's			
<u>Residential</u>												
1	Very Low (0.1 - 0.4 DU/Acre)	12/DU		24	2	51	9	7	7	3.2		
2	Low (0.4 - 2 DU/Acre)	10/DU		24	2	51	9	7	7	3.1		
3	Medium (2 - 5 DU/Acre)	10/DU		24	2	51	9	7	7	2.9		
4	Medium High (5 - 8 DU/Acre)	8/DU		25	1	55	9	5	5	2.7		
5	High (8 - 14 DU/Acre)	7/DU		25	1	55	9	5	5	2.5		
6	Very High (14 - 20 DU/Acre)	6/DU		25	1	55	9	5	5	2.3		
7	Retirement	4/DU		15	1	35	19	15	15	1.7		
8	Resort Residential	3/DU		10	1	50	19	10	10	1.4		
<u>Commercial</u>												
10	Convenience Commercial (<8 AC)	900/AC	82.6/TSF	0	6	0	50	22	22		23	
11	Neighborhood Commercial (8-15 AC)	700/AC	64.3/TSF	0	6	0	50	22	22		21	
12	Community Commercial (16 - 40 AC)	500/AC	45.9/TSF	0	10	0	50	20	20		19	
13	Regional Commercial (>40 AC)	360/AC	33.1/TSF	0	10	0	44	23	23		14	
14	Tourist Commercial	300/AC	27.5/TSF	0	10	0	36	27	27		13	
15	Resort Commercial	100/AC	9.2/TSF	0	10	0	36	27	27		5	
16	Commercial Office	240/AC	15.7/TSF	0	35	0	25	20	20		3	75
17	Medical Office	440/AC	33.7/TSF	0	15	0	47	19	19		9	56
18	Mid-Rise Office	480/AC	13.8/TSF	0	35	0	25	20	20		2	140
<u>Industrial</u>												
20	Business/Industrial Park	180/AC	11.8/TSF	0	43	0	13	22	22		1	45
21	Light Industrial	110/AC	7.2/TSF	0	45	0	11	22	22			31
22	Manufacturing	70/AC	4.6/TSF	0	45	0	11	22	22			16
23	Utilities	10/AC		0	35	0	15	25	25			3
<u>Public/Institutional</u>												
30	High School	60/AC	1.4/ST	0	10	0	70	10	10		2	8
31	Hospital	200/AC	18.4/TSF	0	15	0	55	15	15		6	40
32	General Aviation Airport	4/AC		0	25	0	25	25	25			0.1
33	Government Offices	500/AC	45.9/TSF	0	15	0	45	20	20		5	50
34	Church	90/AC	7.7/TSF	0	15	0	45	20	20		0.5	5
<u>Recreation/Open Space</u>												
40	Community Park	40/AC		0	5	0	65	15	15		0.1	0.2
41	Golf Course	8/AC		0	10	0	50	20	20		0.05	0.1
42	Regional Park	5/AC		0	5	0	65	15	15			0.1
43	Agriculture/Mining	1/AC		0	45	0	15	20	20			0.05
50	Mixed Use	180/AC		5	20	10	25	20	20			

DU = Dwelling Units
 AC = Useable Acres
 TSF = Thousand Square Feet (Gross Floor Area)
 ST = Students
 P's = Productions
 A's = Attractions

trip is from the residence to a shopping location, or from the shopping location to the residence, it is expressed as a home-based production at the residence end of the trip. Retail land uses on the other hand, have no production trip-ends for "home-based" trip purposes; they attract trips made from residential land uses.

Trip Distribution

Once the trip generation within each TAZ has been calculated, the distribution of trips between zones where trips are produced and zones where trips are attracted must be determined. In the traffic model, this function is achieved using a "gravity" distribution model. The gravity model is utilized because it has been demonstrated to perform well and is widely accepted.

The gravity distribution model is based on the well known gravity formula, where the distribution of trips is proportional to the attractiveness of a land use and the distance (or travel time) from the point of trip production. The propensity to favor trips over shorter distances as opposed to trips over longer distances in the distribution process is expressed in terms of a travel time distribution function or curve. A unique distribution curve is utilized for each of the three trip purposes. These curves reflect the tendency of trips to be made over longer distances for employment than for non-employment purposes, such as shopping.

Each distribution curve is represented in the gravity formula through travel time friction factors which identify the curve for different elements of time.

The distribution process is performed uniquely for each trip purpose. The end result of the process is a trip table or matrix for each trip purpose which records the trip interaction between

zones on a production/attraction basis. Because the production/attraction trip table is not directional, it must be transformed to an origin/destination table through the matrix processes of transposition and factoring. The time period directional factors used in the model are shown in Table 5. After transposition and factoring, the trip tables are combined into a single trip table for assignment to the roadway network.

Traffic Assignment

Trip assignment is the process by which trip interchanges between zones, determined in the distribution process, are assigned to specific route paths in the roadway network. The end result is a forecast of daily traffic volume on each roadway link.

The route paths are determined by the model based on specified impedances. The impedance usually selected for this process is travel time. The model will determine the route between an origin and destination zone based on the minimum-time route. The model then assigns the trips specified in the trip table for each origin zone to all destination zones using the minimum-impedance route for each trip interchange.

A number of different assignment techniques may be employed in the assignment process to simulate the manner in which traffic actually loads onto a roadway network. One of those frequently used in Southern California is a multiple-increment, capacity-restraint technique. In this technique, the assignment process is repeated a specified number of times, each time assigning an incremental percentage of the total trips to all routes which is summed with the previous increment. At the end of each assignment, the assigned volume of each link is compared to its capacity and the speed of the link is adjusted accordingly. The assignment process

TABLE 5

TIME PERIOD DIRECTIONAL FACTORS

TIME PERIOD	HOME-BASED WORK			HOME-BASED NONWORK			NON HOME-BASED		
	P-A	A-P	TOTAL	P-A	A-P	TOTAL	P-A	A-P	TOTAL
AM Peak	.2898	.0053	.2951	.0677	.0065	.0742	.0295	.0295	.0590
PM Peak	.0317	.2980	.3297	.0787	.1569	.2356	.1277	.1277	.2554
Off Peak	.2112	.1640	.3852	.3359	.3543	.6902	.3428	.3428	.6856
TOTAL	.5327	.4673	1.0000	.4823	.5177	1.0000	.5000	.5000	1.0000

is, therefore, restrained by the available capacity of each link classification; links which become congested early in the assignment process are given progressively slower speeds, causing trips to be diverted to more favorable (i.e., less congested and higher speed) routes.

The traffic model traffic assignments are based on assignment parameters as shown in Table 6. The assignments are completed through four-increments. The adjustment of link speeds is based on the traditional Bureau of Public Roads adjustment formula.

TABLE 6
ASSIGNMENT PARAMETERS

INCREMENT NO.	ASSIGNMENT %	DAMPING FACTOR
1	25	--
2	25	0.75
3	25	0.75
4	25	0.75

PREFERRED PLAN BUILDOUT PROJECTIONS

Land Use Data

The function of the Circulation Element of the General Plan is to serve as the blueprint for development of the circulation system much in the same way as the Land Use Element serves to guide development of land uses. Accordingly, the travel demand within the circulation system exhibited by traffic from the land uses in a future forecast year (Post 2015) must be estimated to determine the adequacy of roadway classifications. The purpose of the traffic model is to provide an analysis tool which can forecast future traffic volumes within the circulation system. This section of the report presents the initial application of the traffic model for this purpose with the preferred land use plan.

Future land use data within the MTM study area has been tabulated for buildout of the General Plan. These preferred future land uses are summarized by category in Table 7 for the area within the City limits, and in Table 8 for the area within the sphere of influence.

Trip Generation

At buildout, General Plan study area land uses are estimated to generate approximately 1,429,728 total trip-ends and total land uses within the Murrieta Traffic Model extended study area are estimated to generate approximately 7,687,815 trip-ends. External trips at the cordon stations are estimated to total approximately 570,103 trip-ends. Through trips between cordon stations at buildout are estimated as shown in Table 9.

TABLE 7

MTM PREFERRED LAND USE SUMMARY BY CATEGORY

(WITHIN CITY LIMITS)

LAND USE CODE	DESCRIPTION	QUANTITY	UNITS
<u>Residential</u>			
1	Very Low (0.1 - 0.4 DU/Acre)	469.0	DU
2	Low (0.4 - 2 DU/Acre)	833.0	DU
3	Medium (2 - 5 DU/Acre)	14,361.0	DU
4	Medium High (5 - 8 DU/Acre)	8,899.0	DU
5	High (8 - 14 DU/Acre)	2,968.0	DU
6	Very High (14 - 20 DU/Acre)	4,118.0	DU
<u>Commercial</u>			
11	Neighborhood Commercial (8 - 15 AC)	429.5	Acres
12	Community Commercial (16-40 AC)	146.2	Acres
13	Regional Commercial (>40 AC)	354.8	Acres
16	Commercial Office	47.3	Acres
<u>Industrial</u>			
21	Light Industrial	999.5	Acres
22	Manufacturing	76.5	
<u>Public/Institutional</u>			
31	Hospital	305.2	Acres
<u>Recreational/Open Space</u>			
40	Community Park	201.4	Acres
41	Golf Course	449.9	Acres
42	Regional Park	1,284.6	Acres
50	Mixed Use	303.2	Acres

TABLE 8
MTM PREFERRED LAND USE SUMMARY BY CATEGORY
(WITHIN CITY SPHERE OF INFLUENCE)

LAND USE CODE	DESCRIPTION	QUANTITY	UNITS
<u>Residential</u>			
1	Very Low (0.1 - 0.4 DU/Acre)	356.0	DU
2	Low (0.4 - 2 DU/Acre)	2,393.0	DU
3	Medium (2 - 5 DU/Acre)	11,514.0	DU
4	Medium High (5 - 8 DU/Acre)	1,547.0	DU
5	High (8 - 14 DU/Acre)	835.0	DU
6	Very High (14 - 20 DU/Acre)	394.0	DU
<u>Commercial</u>			
11	Neighborhood Commercial (8 - 15 AC)	150.0	Acres
13	Regional Commercial (>40 AC)	67.3	Acres
16	Commercial Office	7.5	Acres
<u>Industrial</u>			
21	Light Industrial	869.4	Acres
<u>Public/Institutional</u>			
31	Hospital	33.5	Acres
<u>Recreational/Open Space</u>			
40	Community Park	13.6	Acres
41	Golf Course	187.4	Acres

TABLE 9

AM, PM AND OFF-PEAK PERIODTHROUGH TRIPS FOR POST 2015 CONDITIONS

<u>CORDON INTERCHANGE</u>		<u>VOLUME</u>		
<u>ORIGIN</u>	<u>DESTINATION</u>	<u>ASSIGNMENT PERIOD</u>		
		<u>AM</u>	<u>PM</u>	<u>OFF-PEAK</u>
1	222	4	50	96
222	1	6	84	168
1	236	14	186	378
236	1	20	50	398
1	224	16	106	404
224	1	64	2	438
222	236	40	602	1196
236	222	48	610	1264
222	233	3076	14574	25820
233	222	2626	15506	27058
222	224	686	3515	7510
224	222	1074	3646	7738
236	237	12	2	278
237	236	42	120	318
1	242	2	84	8
242	1	2	50	56
224	237	2	82	2
237	224	2	2	2
233	237	12	2504	12
237	233	12	1726	12
2	222	42	16	318
222	2	12	120	278
2	233	22	8	160
233	2	6	60	138

TABLE 9 (CONT'D.)

AM, PM AND OFF-PEAK PERIOD

THROUGH TRIPS FOR POST 2015 CONDITIONS

<u>CORDON INTERCHANGE</u>		<u>VOLUME</u>		
		<u>ASSIGNMENT PERIOD</u>		
<u>ORIGIN</u>	<u>DESTINATION</u>	<u>AM</u>	<u>PM</u>	<u>OFF-PEAK</u>
2	224	84	30	636
224	2	24	240	412
224	237	12	194	50
237	224	14	324	52
1	237	4	50	96
237	1	6	84	168
1	233	14	186	378
233	1	20	50	398
222	221	40	502	896
221	222	48	510	964
222	223	140	576	902
223	222	148	607	910

Traffic Assignment

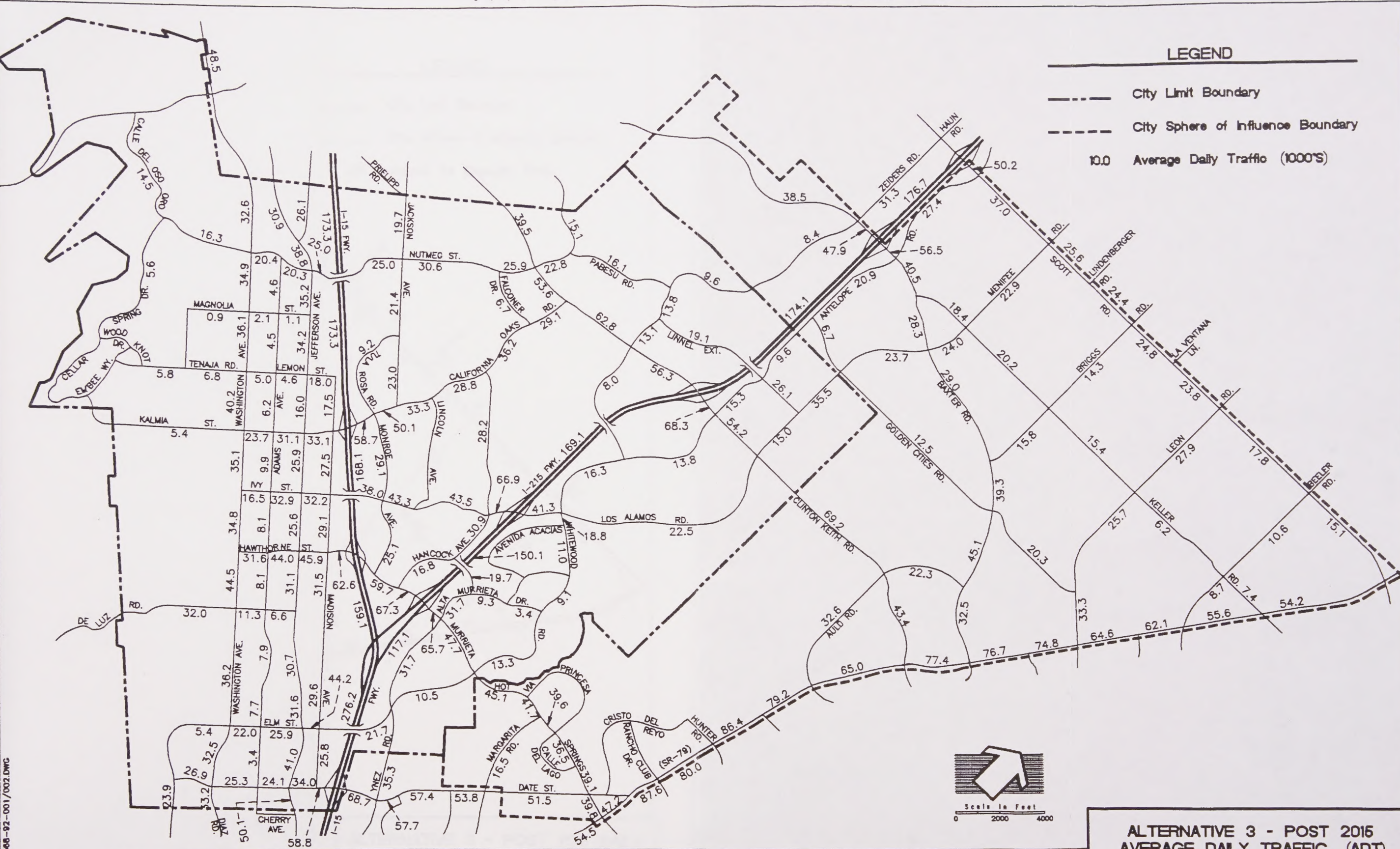
Traffic volumes estimated by the model for the Preferred Circulation Plan network appear on Exhibit O. This forecast is based on the assignment parameters shown in Table 6.

Volume to capacity ratios on the Preferred Plan network are shown on Exhibit P. Those roadway segments which are projected to have traffic demands over design capacity (Level of Service "C") based upon the City Preferred Circulation Plan are as follows:

- Nutmeg Street between Jefferson Avenue and Clinton Keith Road
- California Oaks Road between Madison Avenue and Lincoln Avenue, and between Hancock Avenue and Falconer Drive
- Ivy Street between Adams Avenue and Jefferson Avenue
- Los Alamos Road between Monroe Avenue and the I-215 Freeway northbound Ramps
- Hawthorne Street between Washington Avenue and Adams Avenue
- Murrieta Hot Springs Road between Madison Avenue and Whitewood Road
- De Luz Road between the west City Limits and Washington Avenue
- Elm Street between Jefferson Avenue and Madison Avenue
- Date Street between Madison Avenue and Ynez Road
- Jefferson Avenue between the south City Limits and Date Street

LEGEND

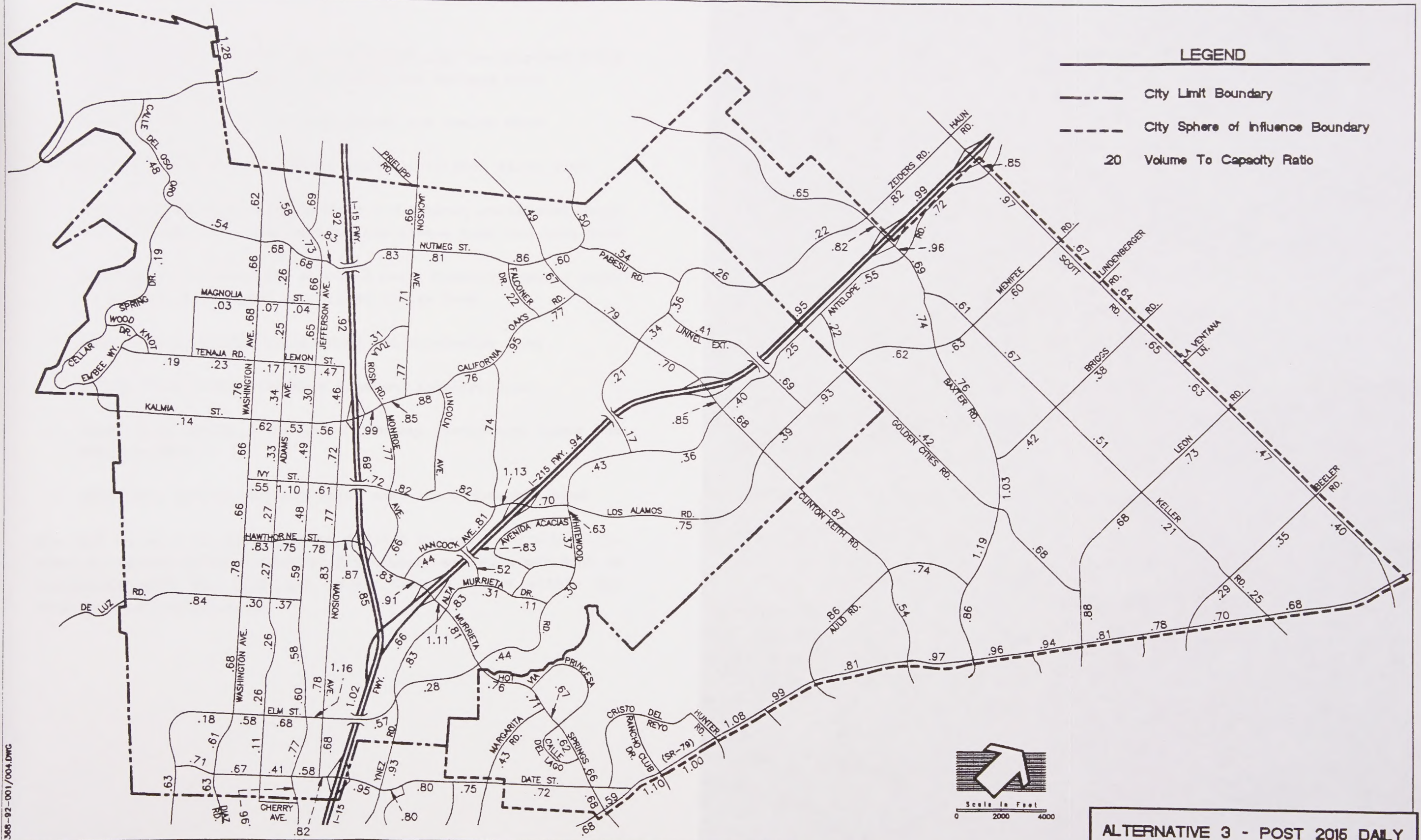
- City Limit Boundary
- City Sphere of Influence Boundary
- 10.0 Average Daily Traffic (1000'S)



ALTERNATIVE 3 - POST 2016
AVERAGE DAILY TRAFFIC (ADT)

EXHIBIT O

CITY OF MURRIETA • GENERAL PLAN



**ALTERNATIVE 3 - POST 2015 DAILY
VOLUME TO CAPACITY RATIOS**

- Alta Murrieta Drive between Elm Street and the proposed I-215 Freeway crossing north of Murrieta Hot Springs Road
- Winchester Road between Date Street and Beeler Road
- Auld Road between Winchester Road and Clinton Keith Road
- Clinton Keith Road between the I-215 Freeway southbound Ramps and Antelope Road, and between Los Alamos Road and Auld Road
- Meniffee Road between the proposed I-215 Freeway crossing north of Clinton Keith Road and Golden Cities Road
- Baxter Road between Briggs Road and Winchester Road
- Keller Road between Zeiders Road and Antelope Road
- Scott Road between the I-215 Freeway northbound Ramps and Meniffee Road
- Leon Road between Golden Cities Road and Winchester Road

The ADT volume forecast shown in Exhibit O, and the volume-to-capacity ratios shown in Exhibit P represent areawide buildout in accordance with the City and County General Plans within the extended model study area.

ALTERNATIVE LAND USE PLANS

Land Use Comparison

The heart of the General Plan process involves the review and analysis of varied land uses within the General Plan Study Area. These uses support and interact with each other in complex ways to produce travel demands on the General Plan Circulation System. The traffic model is an ideal tool for analyzing the travel demand representative of different land use plans. This section of the report presents a comparison of the Preferred Land Use Plan to two alternative plans: the initial Riverside County Southwest Area Plan (SWAP), and a SWAP Plus Approved Specific Plans Alternative.

Future land uses within the General Plan Study Area have been tabulated for buildout of the General Plan for each land use alternative. These future land uses are summarized by category in Tables 10 and 11. Table 10 presents the summary for land uses within the City Limits area, and Table 11 presents the summary for land uses within the City Sphere of Influence area.

Trip End Summary

From the aspect of traffic demand, the trip generation characteristics of the alternative land use plans can best be reviewed by a comparison of trip ends generated by the land uses of each alternative. These comparisons are summarized in Tables 12 and 13. Table 12 presents the summary for land uses within the City Limits area, and Table 13 presents the summary for land uses within the City Sphere of Influence area.

As shown in the upper portion of Tables 12 and 13, Alternatives 1 and 2 display imbalances between Home-Based Work productions and

TABLE 10

GENERAL PLAN LAND USE ALTERNATIVES SUMMARY BY CATEGORY

(WITHIN CITY LIMITS)

LAND USE CODE	DESCRIPTION	UNITS	ALTERNATIVE 1 SWAP PLAN QUANTITY	ALTERNATIVE 2 SWAP + SP QUANTITY	ALTERNATIVE 3 PREFERRED PLAN QUANTITY
<u>Residential</u>					
1	Very Low (0.1 - 0.4 DU/Acre)	DU	423.0	234.0	469.0
2	Low (0.4 - 2 DU/Acre)	DU	1,056.0	1,453.0	833.0
3	Medium (2 - 5 DU/Acre)	DU	15,629.0	16,782.0	14,361.0
4	Medium High (5 - 8 DU/Acre)	DU	3,415.0	4,550.0	8,899.0
5	High (8 - 14 DU/Acre)	DU	126.0	299.0	2,968.0
6	Very High (14 - 20 DU/Acre)	DU	3,972.0	3,972.0	4,118.0
<u>Commercial</u>					
11	Neighborhood Commercial (8 - 15 AC)	Acres	28.0	20.4	429.5
12	Community Commercial (16-40 AC)	Acres	1,311.9	1,461.4	146.2
13	Regional Commercial (>40 AC)	Acres	146.2	146.2	354.8
15	Resort Commercial	Acres	12.4	22.0	22.0
16	Commercial Office	Acres	0.0	0.0	47.3
<u>Industrial</u>					
21	Light Industrial	Acres	1,492.4	306.4	999.5
22	Manufacturing	Acres	258.5	1,414.7	76.3
<u>Public/Institutional</u>					
31	Hospital	Acres	218.6	207.0	305.2
<u>Recreational/Open Space</u>					
40	Community Park	Acres	451.1	651.3	201.4
41	Golf Course	Acres	0.0	0.0	449.9
50	Mixed Use	Acres	200.8	0.0	303.2

TABLE 11
GENERAL PLAN LAND USE ALTERNATIVES SUMMARY BY CATEGORY
(WITHIN CITY SPHERE OF INFLUENCE)

LAND USE CODE	DESCRIPTION	UNITS	ALTERNATIVE 1 SWAP PLAN QUANTITY	ALTERNATIVE 2 SWAP + SP QUANTITY	ALTERNATIVE 3 PREFERRED PLAN QUANTITY
<u>Residential</u>					
1	Very Low (0.1 - 0.4 DU/Acre)	DU	1,109.0	305.0	356.0
2	Low (0.4 - 2 DU/Acre)	DU	291.0	3,500.0	2,393.0
3	Medium (2 - 5 DU/Acre)	DU	2,816.0	10,273.0	11,514.0
4	Medium High (5 - 8 DU/Acre)	DU	1,375.0	1,293.0	1,547.0
5	High (8 - 14 DU/Acre)	DU	835.0	1,410.0	835.0
6	Very High (14 - 20 DU/Acre)	DU	394.0	394.0	394.0
<u>Commercial</u>					
11	Neighborhood Commercial (8 - 15 AC)	Acres	7.5	7.5	150.0
12	Community Commercial (16-40 AC)	Acres	158.0	321.8	0.0
13	Regional Commercial (>40 AC)	Acres	0.0	13.0	67.3
15	Resort Commercial	Acres	12.4	22.0	22.0
16	Commercial Office	Acres	0.0	0.0	7.5
<u>Industrial</u>					
21	Light Industrial	Acres	200.2	348.6	869.4
22	Manufacturing	Acres	0.0	358.1	0.0
<u>Public/Institutional</u>					
31	Hospital	Acres	33.5	33.5	33.5
<u>Recreational/Open Space</u>					
40	Community Park	Acres	201.0	215.0	13.6
41	Golf Course	Acres	0.0	0.0	187.4
43	Agriculture/Mining	Acres	280.7	0.0	0.0
50	Mixed Use	Acres	0.0	9.3	0.0

TABLE 12

TRIP GENERATION SUMMARY

POST 2015 CONDITIONS

WITHIN CITY LIMITS

LAND USE ALTERNATIVE	TRIP ENDS	TRIP PURPOSE ¹			TOTAL
		HBW	HBW	NHB	
Alternative 1 SWAP	Productions	56,082	119,909	219,161	395,152
	Attractions	172,821	446,388	219,161	838,370
	Total	228,903	566,297	438,322	1,233,522
Alternative 2 SWAP + SP	Productions	60,020	128,702	217,373	406,095
	Attractions	150,976	473,012	217,373	841,361
	Total	210,996	601,714	434,746	1,247,456
Alternative 3 Preferred	Productions	69,719	149,979	176,510	396,208
	Attractions	118,986	336,524	176,510	632,020
	Total	188,705	486,503	353,020	1,028,228
Preferred vs. SWAP	Productions	13,637	30,070	-42,651	1,056
	Attractions	-53,835	-109,864	-42,651	-206,350
	Total	-40,198	-79,794	-85,302	-205,294
Preferred vs. SWAP + SP	Productions	9,699	21,277	-40,863	-9,887
	Attractions	-31,990	-136,488	-40,863	-209,341
	Total	-22,291	-115,211	-81,726	-219,228

¹ HBW = Home Based Work
HBW = Home Based Non-Work
NHB = Non Home Based

TABLE 13

TRIP GENERATION SUMMARY

POST 2015 CONDITIONS

WITHIN CITY SPHERE OF INFLUENCE

LAND USE ALTERNATIVE	TRIP ENDS	TRIP PURPOSE ¹			TOTAL
		HBW	HBW	NHB	
Alternative 1 SWAP	Productions	15,452	33,198	29,134	77,784
	Attractions	21,105	60,547	29,134	110,786
	Total	36,557	93,745	58,268	188,570
Alternative 2 SWAP + SP	Productions	39,659	84,693	62,763	187,115
	Attractions	51,132	116,579	62,763	230,474
	Total	90,791	201,272	125,526	417,589
Alternative 3 Preferred	Productions	39,552	84,421	63,209	187,182
	Attractions	56,863	94,246	63,209	214,318
	Total	96,415	178,667	126,418	401,500
Preferred vs. SWAP	Productions	24,100	51,223	34,075	109,398
	Attractions	35,758	33,699	34,075	103,532
	Total	59,858	84,922	68,150	212,930
Preferred vs. SWAP + SP	Productions	-107	-272	446	67
	Attractions	5,731	-22,333	446	-16,156
	Total	5,624	-22,605	892	-16,089

¹ HBW = Home Based Work
HBW = Home Based Non-Work
NHB = Non Home Based

attractions, and between Home-Based Non-Work productions and attractions. This translates into an unreasonably high inward flow of traffic into the City Limits and Sphere of Influence for work and non-work traffic to satisfy the theoretical employment and shopping attractions in these areas.

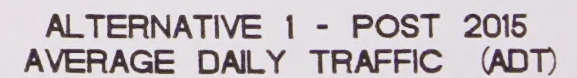
The lower portion of Tables 12 and 13 present a comparison of the Preferred Land Use Plan to the other alternatives. As shown in the tables, within the City Limits area, the Preferred Plan reduces the total daily trip ends by over approximately 200,000. A significant portion of this overall reduction is due to a reduction of Home-Based Non-Work trip attractions. This represents an improvement of the balance between residential "shopping/non-work" trip productions and commercial "shopping/non-work" attractions. A similar reduction also occurs for employment trips.

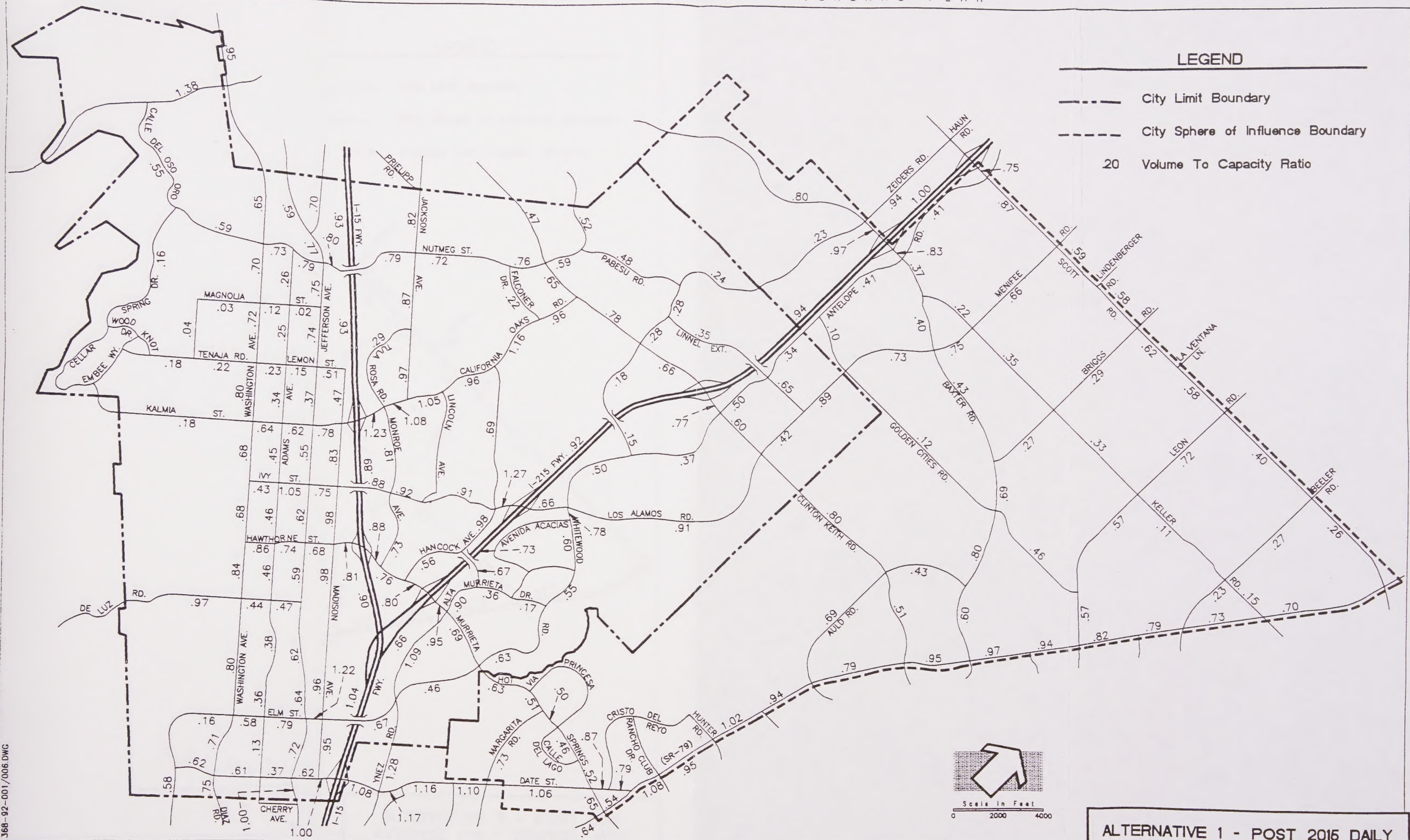
Traffic Assignment

Traffic volumes estimated by the model within the Preferred Circulation Plan for land use Alternatives 1 and 2 are shown in Exhibits Q and S respectively. Resulting volume-to-capacity ratios based on the Preferred Circulation Plan for Alternatives 1 and 2 are shown in Exhibits R and T respectively.

For the Alternative 1 (SWAP) land use plan, most roadways which are projected to have traffic demands over design capacity for the Alternative 3 (Preferred) land use plan are also over design capacity for this alternative. There are, however, some additional roadways which exhibit demand over design capacity, and these are:

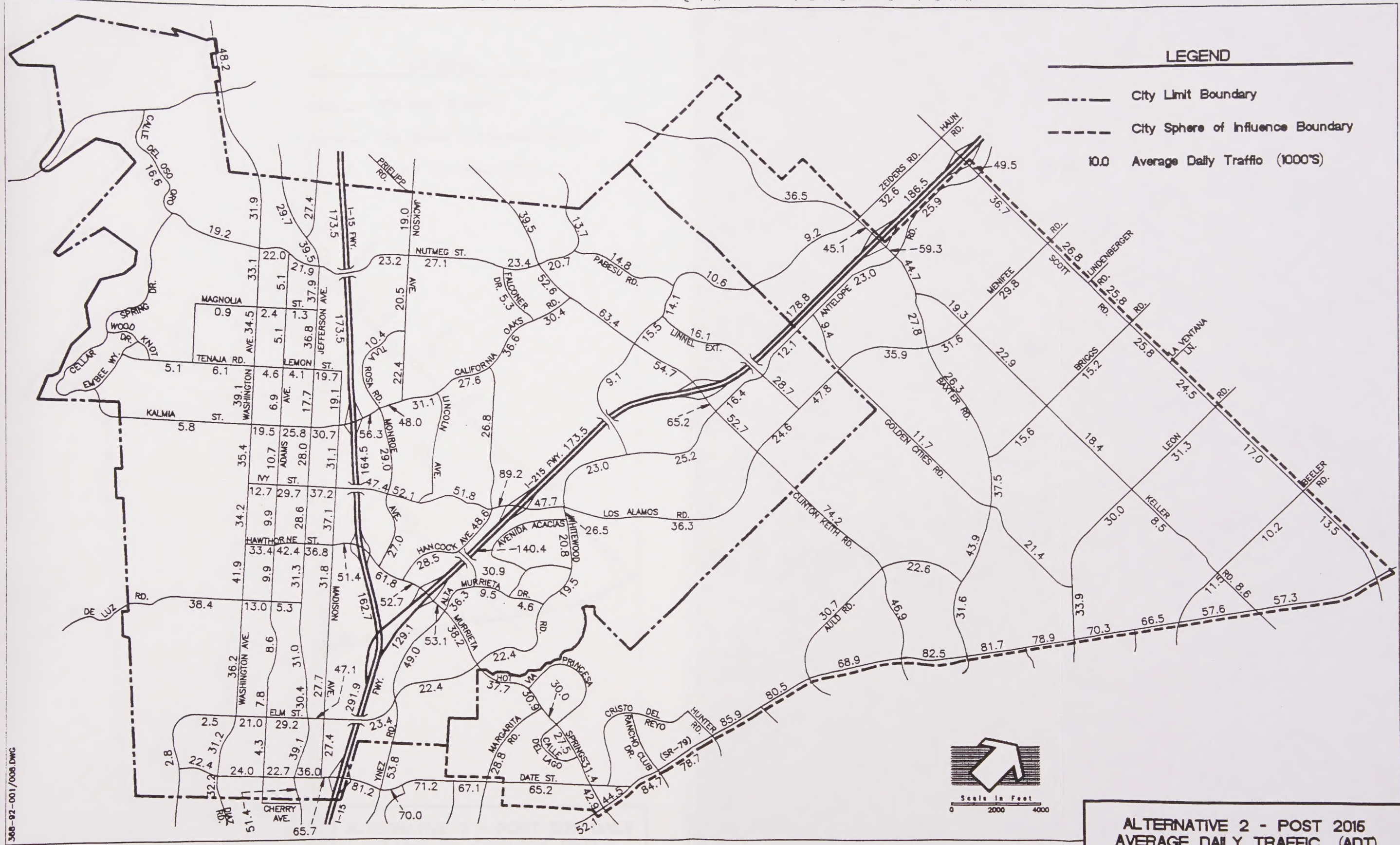
- Madison Avenue between Date Street and De Luz Road, and between Hawthorne Street and Kalmia Street



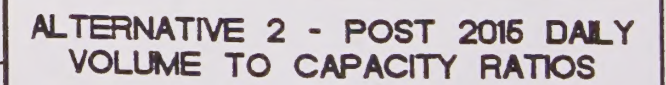


ALTERNATIVE 1 - POST 2016 DAILY
VOLUME TO CAPACITY RATIOS

368-92-001/006.DWG



**ALTERNATIVE 2 - POST 2016
AVERAGE DAILY TRAFFIC (ADT)**



- Jackson Avenue between California Oaks Road and Prielipp Road
- California Oaks Road between Lincoln Avenue and Hancock Avenue, and between Falconer Drive and Clinton Keith Road
- Los Alamos Road between Madison Avenue and Monroe Avenue, and between Whitewood Road and Clinton Keith Road
- Hancock Avenue between the proposed I-215 Freeway crossing north of Murrieta Hot Springs Road and Los Alamos Road
- Ynez Road between Date Street and Whitewood Road
- Date Street between Ynez Road and Cristo Del Rey

Roadways which were cited as exhibiting a demand exceeding design capacity for Alternative 3 and now exhibit a demand which is lower than design capacity for Alternative 1 are Nutmeg Street, Clinton Keith Road, a portion of Murrieta Hot Springs Road, Auld Road, Leon Road and Baxter Road.

The Alternative 2 (SWAP plus approved specific plans) land use plan generally presents the highest travel demand of the three alternatives and exhibits slightly higher volume-to-capacity ratios on most study area roadways. In addition to those roadways cited above for Alternatives 1 and 3, there are some additional roadways which exhibit demand exceeding design capacity. These roadways are:

- Whitewood Road between Los Alamos Road and Avenida Acacias
- Menifee Road between Golden Cities Road and Keller Road

- The proposed overcrossing of the I-215 Freeway north of Murrieta Hot Springs Road
- Leon road between Keller Road and Scott Road

Although the impacts on specific roads differ slightly, the Alternative 3 (Preferred) land use plan exhibits the lowest overall travel demand when compared to the other alternatives.

CONCLUSIONS

Circulation System Requirements

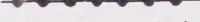
Based on the assignment shown in Exhibit P for the Preferred Land Use Plan (Alternative 3) and the Preferred Circulation Plan of November 1992, roadway sizing and corridor requirements have been determined. These requirements are shown in Exhibit U which depicts the recommended circulation system classifications. The recommended circulation system is described in full in the recommendations section which follows.

Compared to the Preferred Circulation Plan of November 1992 shown in Exhibit P, the recommended circulation system shown in Exhibit U incorporates three roadway classification upgrades:

- Upgrade Scott Road between Antelope Road and Meniffee Road from a Major classification to an Urban Arterial classification.
- Upgrade Baxter Road between Briggs Road and Winchester Road from a Major classification to an Urban Arterial classification.
- Upgrade Ivy Street between Adams Avenue and Jefferson Avenue from a Secondary classification to an Augmented Major classification.

With these roadway classification upgrades to the Preferred Plan of November 1992, some localized roadway segments will operate slightly above Level of Service "C" capacity based on the classifications selected (daily volume-to-capacity ratio higher than 0.80). These roadway segments were described previously in the traffic assessment section for Alternative 3. Where the



- LEGEND:**
-  = REGIONAL FREEWAY CORRIDOR / HOV FACILITY
 -  = MULTI-MODAL TRANSPORTATION CORRIDOR
 -  = AUGMENTED URBAN ARTERIAL
 -  = URBAN ARTERIAL
 -  = ARTERIAL
 -  = AUGMENTED MAJOR
 -  = MAJOR
 -  = SECONDARY
 -  = PROPOSED ADDITIONAL INTERCHANGE



**DRAFT CITY OF MURRIETA
CIRCULATION PLAN**

EXHIBIT U

circulation system will operate above Level of Service "C", improvement in the flow of traffic can be achieved by implementation of capacity augmentation features at intersections within these areas. This strategy is discussed further in the recommendations section which follows.

As illustrated on Exhibit U, the results of the Murrieta Traffic Model assessment indicate that three supplemental corridor designations are desirable. These are:

- An Augmented Urban Arterial Cross-section is recommended on Murrieta Hot Springs Road between Madison Avenue and the I-215 Freeway northbound Ramps, and also on Date Street between Madison Avenue and Ynez Road.
- An Augmented Major Cross-section is recommended on Washington Avenue/Grand Avenue and on Jefferson Avenue/Palomar Street between the south City Limits and the north City Limits, and on Ivy Street/Los Alamos Road between Adams Avenue and Hancock Avenue.
- A Multi-Modal Transportation Corridor on Clinton Keith Road between Palomar Street and Winchester Road, and on Winchester Road within the General Plan study area.

The use of the Augmented Urban Arterial Cross-section is recommended for high volume roadway segments approaching freeway interchanges. The utilization of this cross-section will provide enhanced capacity for roadway segments requiring roadway capacity in excess of that which can be provided by the standard Urban Arterial Cross-section.

As illustrated in Exhibit U and described above, the designation of two roadway corridors as Multi-Modal Transportation Corridors is recommended. Clinton Keith Road and Winchester Road were both previously recommended as potential Multi-Modal corridors in the Southwest District Traffic Model Circulation Recommendations.

Corridor Features

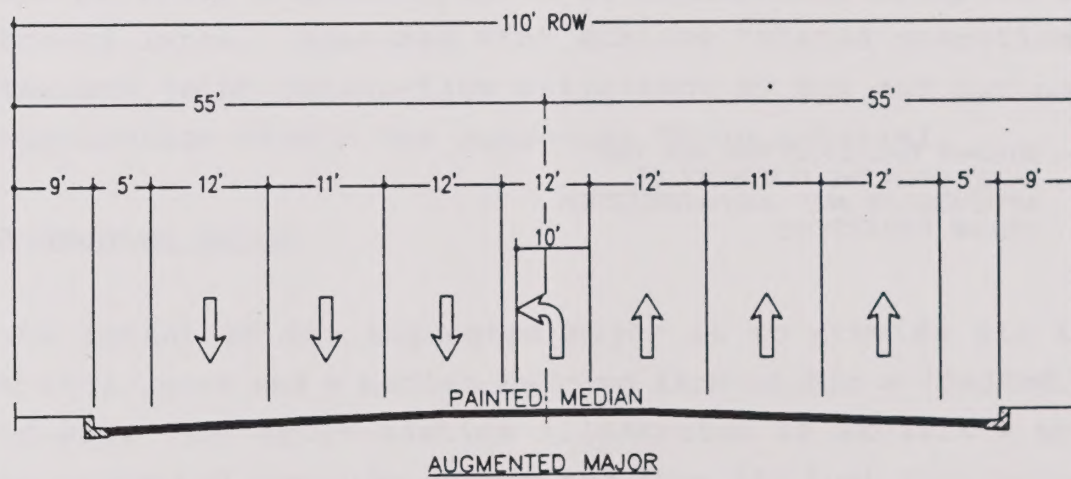
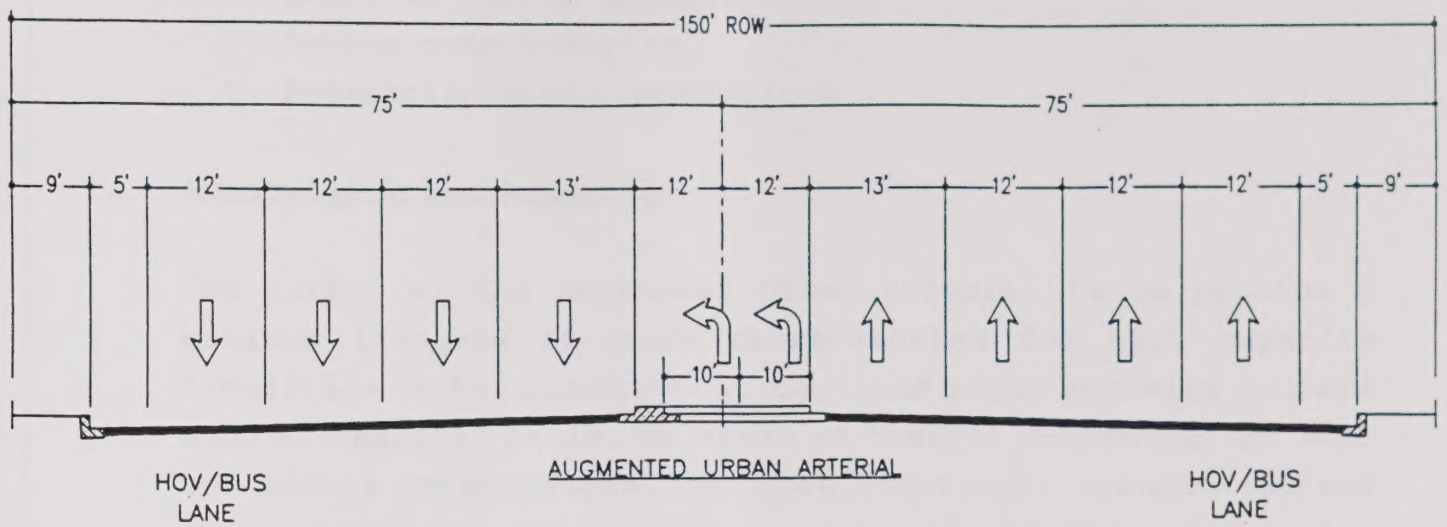
The Augmented Urban Arterial Cross-section and Augmented Major Cross-section are illustrated in Exhibit V and the potential Multi-Modal Transportation Corridor Cross-section is illustrated in Exhibit W. These new classifications are recommended to address travel demand needs in terms of (1) enhanced capacity, and (2) with the flexibility to accommodate alternative transportation modes.

1. Multi-Modal Transportation Corridor

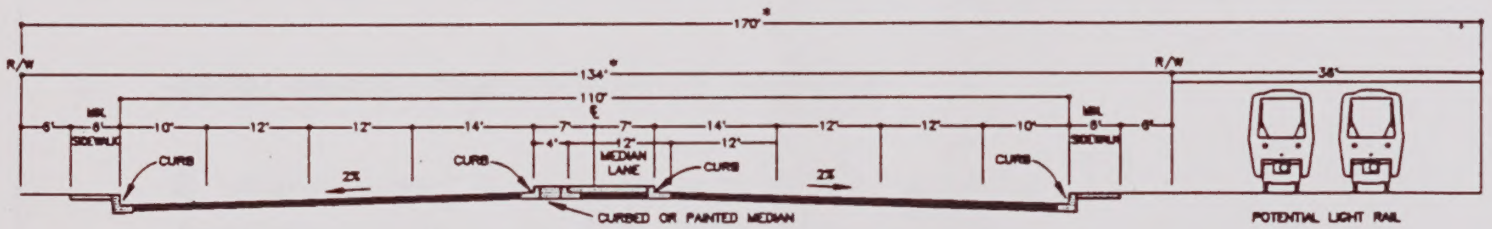
A multi-modal transportation corridor can be defined as a facility of four to six lanes, depending on projected traffic volumes, and a right-of-way of sufficient width to accommodate future options, such as fixed rail or high occupancy vehicles. Where feasible these routes will be designed to Caltrans expressway standards.

Multi-Modal Transportation Corridors should provide an enhanced traffic-carrying capacity. The augmentation in capacity may be achieved by a variety of measures:

- Addition of through or turn lanes
- Preferential traffic signal timing and synchronization
- Loops for left turn
- Removal of on-street parking
- Intersection grade separations



AUGMENTED CROSS-SECTIONS



* - ROADWAY CROSS-SECTION MAY VARY
BASED UPON THE FEASIBILITY OF
IMPROVEMENTS AND LINK/INTERSECTION
VOLUME PROJECTIONS

368-92-001/012A

MULTI-MODAL TRANSPORTATION CORRIDOR WITH AT-GRADE INTERSECTIONS

EXHIBIT W

- Grade separated turning movements
- Access limitation - right turns only, or no access (streets and/or driveways)
- Access consolidation
- Pedestrian grade separations

2. Augmented Urban Arterial

The intent of the Augmented Urban Arterial is to provide a maximum feasible at-grade cross-section for high capacity facilities in the immediate vicinity of major activity centers such as regional malls, or areas of traffic concentration such as freeway interchanges. At such locations, transit options are sometimes limited to on-road systems and heavy turning movements must be accommodated to adjacent land uses or ramps.

Eight through travel lanes as well as dual left turn lanes are provided within the Augmented Urban Arterial cross-section. Bus priority treatments could be implemented along the outside travel lanes. Measures that achieve "shared operations" and maximum joint person-flow efficiency by bus and car can have application within the Augmented Urban Arterial.

3. Augmented Major

The intent of the Augmented Major is to provide six through travel lanes and a median turning lane within a limited right-of-way. The cross-section illustrated in Exhibit V provides an augmented capacity within the same 110 foot right-of-way as an Arterial cross-section. The median turning lane is provided within a painted median as opposed to a raised median. The Augmented Major cross-section provides a painted bike lane adjacent to the curb lane.

Recommendations

The circulation system features required to support the traffic demands of buildout of the City of Murrieta Preferred Land Use Plan are identified in Exhibit U. This exhibit presents recommended circulation system classifications which include three new corridor designations as discussed above, as well as alignment revisions compared to the current Riverside County General Plan Circulation Element shown in Exhibit G. Specific circulation recommendations for the City of Murrieta General Plan Circulation Element have been determined by comparing the features of Exhibit U to Exhibit G. These recommendations are summarized below.

Provide for the following new roadway features:

1. An interchange on the I-215 Freeway at Keller Road.
2. An interchange on the I-15 Freeway at Date Street.
3. The addition of integrated new general transportation corridors west of the I-15 Freeway created by extending Jefferson Avenue north to Palomar Street and by extending Washington Street north to Grand Avenue and south to Diaz Road, both as Augmented Major classifications.
4. The realignment and upgrade of Meniffee Road as an Arterial classification between Clinton Keith Road and Keller Road (an alignment known as Meadowlark Road) to join with Los Alamos Road.
5. The extension of Zeiders Road between Scott Road and Clinton Keith Road as a Secondary/Major/Arterial.

6. The addition of a new crossing of the I-215 Freeway north of Clinton Keith Road (an alignment known as Stepp Road/Linnel Lane) between the extension of Zeiders Road and Meadowlark Road.
7. The addition of a new road north of Clinton Keith Road (an alignment known as Pabesu Road) between Zeiders Road and La Estrella Road.
8. The extension of Keller Road west of the proposed new Keller Road interchange with the I-215 Freeway as an Urban Arterial classification to connect with Baxter Road at the I-15 Freeway.
9. The realignment of Baxter Road between Winchester Road and Antelope Road to join with Keller Road at Meniffee Road.
10. The realignment of Leon Road between Keller Road and Winchester Road.
11. The addition of Golden City Drive between Antelope Road and Leon Road roughly along an alignment similar to the previous Baxter Road alignment.
12. The addition of a new crossing of the I-215 Freeway south of Clinton Keith Road as a Secondary Classification to connect with Zeiders Road at Clinton Keith Road.
13. The extension of Beeler Road from Scott Road to Winchester Road as a Secondary Classification.
14. The extension of Auld Road northwest from Winchester Road to Clinton Keith Road as a Major classification.

Revise the classification of the following existing Riverside County General Plan Circulation Element roadways or equivalent City of Murrieta facilities:

1. Designate two Multi-Modal Transportation Corridors: Clinton Keith Road between Palomar Street and Winchester road, and Winchester Road from Diaz Road to Scott Road.
2. Upgrade Keller Road east of the I-215 Freeway to Baxter Road to an Urban Arterial classification from a Secondary classification.
3. Upgrade Nutmeg Street between Jefferson Avenue and Clinton Keith Road to a Major classification from a Secondary classification.
4. Upgrade Murrieta Hot Springs Road between Madison Avenue and Alta Murrieta Drive to an Augmented Urban Arterial classification from an Arterial classification.
5. Upgrade Date Street between Madison Avenue and Ynez Road from an Arterial classification to an Augmented Urban Arterial classification.
6. Upgrade Date Street between Adams Avenue and Madison Avenue, and between Ynez Road and Winchester Road from an Arterial classification to an Urban Arterial classification.
7. Upgrade Ivy Street/Los Alamos Road between Adams Avenue and Hancock Avenue from a Major classification to an Augmented Major classification.

8. Upgrade Murrieta Hot Springs Road between Adams Avenue and Madison Avenue, and between Alta Murrieta Drive and Winchester Road from an Arterial classification to an Urban Arterial classification.

In addition, to enhance the flow of traffic on arterials which may operate above Level of Service "C" during peak hour periods, the intersections shown on Exhibit X may require capacity augmentation.

Adequate intersection performance during peak traffic hours can be insured with intersection geometrics which satisfy turning movement and through traffic capacity demands. In many instances, this may require dual left-turn lanes, and right-turn deceleration lanes on intersection approaches of the major roadway. By insuring that sufficient right-of-way is reserved at the critical intersections within the roadway system, it will be possible to implement the approach lane geometrics necessary to provide the required Level of Service

As development within the City of Murrieta occurs, the improvement of the area-wide roadway system must occur concurrently in order to provide an adequate Level of Service. To insure that funds from developers and/or area-wide fee programs are appropriately targeted to ongoing circulation needs, it is recommended that a development monitoring process be implemented citywide.

The development monitoring process should require that proposed development submit traffic impact study reports to the City of Murrieta to identify project "opening year" traffic impacts, service levels and mitigation measures required to maintain adequate roadway system performance. Traffic impact study reports should accompany plot plan and tentative tract map submittals to the City.



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